

Course Descriptions

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ACCT: Accounting

No upper level (100/3000-level and above) accounting courses may be taken on a credit/no credit or audited basis without written consent of the department head or director of the MAcc, except ACCT 3090, ACCT 3092/5092, ACCT 3179, and ACCT 6090.

Courses

ACCT 2120. Principles of Financial Accounting — 3 hrs.

Introduction to reporting financial information regarding the operating, investing and financing activities of business enterprises to present and potential investors, creditors, and others. Regression note: Subsequent to successfully completing a 100/3000/4000-level Accounting course, neither ACCT 2120 nor ACCT 2130 may be repeated. Prerequisite(s): sophomore standing. (Fall, Spring, Summer)

ACCT 2130. Principles of Managerial Accounting — 3 hrs.

Introduction to processes leading to information useful to decision-makers responsible for an accounting entity's activities. Includes product costing, cost behavior, budgeting, performance analysis, and relevant costs. Regression note: Subsequent to successfully completing a 100/3000/4000-level Accounting course, neither ACCT 2120 nor ACCT 2130 may be repeated. Prerequisite(s): C- or better in ACCT 2120; sophomore standing. (Fall, Spring, Summer)

ACCT 3055. VITA: Individual Income Tax Preparation — 2 hrs.

The Volunteer Income Tax Assistance Program (VITA) is sponsored by the IRS. VITA volunteers prepare federal and state income tax returns at no charge for low-income individuals. May be repeated one time for maximum of 4 hours. Prerequisite(s): ACCT 4150. (Spring)

ACCT 3075. Legal and Ethical Concepts for Accountants — 3 hrs.

Study of ethical and legal concepts including the ethical context of law, the Constitution, contracts, UCC, secured transactions, business

organizations, bankruptcy, agency, torts, employment, and property. Ethical considerations of all topics are analyzed. Prerequisite(s): junior standing. (Fall)

ACCT 3090. Internship -- Accounting — 2-8 hrs.

Full-time accounting internship for minimum of eight weeks. Offered on credit/no credit basis only. Prerequisite(s): 2.70 cumulative UNI GPA; junior standing; consent of department head. (Fall, Spring, Summer)

ACCT 3092/5092. Special Problems -- Accounting — 1-3 hrs.

Directed readings, reports, and/or projects. Offered on credit/no credit basis only. Prerequisite(s): junior standing; consent of department head. (Fall, Spring, Summer)

ACCT 3094. Individual Readings — 1-3 hrs.

Directed readings and reports. May be repeated for maximum of 6 hours. Prerequisite(s): consent of department head or MAcc coordinator. (Fall, Spring, Summer)

ACCT 3120. Intermediate Accounting I — 3 hrs.

In-depth coverage of the theory and practice of financial accounting for assets, including accounting standards/concepts development, time value of money, and revenue recognition. Prerequisite(s): ACCT 2120; ACCT 2130; junior standing. (Fall and Spring)

ACCT 3122. Intermediate Accounting II — 3 hrs.

In-depth coverage of the theory and practice of financial accounting for liabilities and equity, including earnings per share, deferred taxes, pensions, leases, accounting changes, error corrections, and cash flows. Prerequisite(s): ACCT 2120; ACCT 2130; C- or better in ACCT 3120; junior standing. (Fall and Spring)

ACCT 3130. Cost Accounting and Analysis — 3 hrs.

Management use of accounting data to aid in product costing, performance analysis, budgeting, and other operating decisions. Prerequisite(s): ACCT 2120; ACCT 2130; junior standing. (Fall and Spring)

ACCT 3140. Accounting Information Systems and Analytics — 3 hrs.

Analysis of computer-based accounting information systems and how organizations capture, record, store, secure, process, report, and analyze accounting data and information. Prerequisite(s): ACCT 2120; ACCT 2130; C- or better in ACCT 3120; MGMT 2080; junior standing. (Fall and Spring)

ACCT 3179. Cooperative Education in Accounting — 1-3 hrs.

Offered on credit/no credit basis only. May be repeated for maximum of 6 hours. (Fall, Spring, Summer)

ACCT 4025/5025. Advanced Accounting — 3 hrs.

Accounting for business combinations, foreign currency translation, consolidations, and derivatives and hedging. Prerequisite(s): ACCT 2120; ACCT 2130; ACCT 3120; ACCT 3122; junior standing. (Fall and Spring)

ACCT 4052. Advanced Income Tax — 3 hrs.

Advanced income taxation as relates to corporations, partnerships, pass through entities, trusts, and estates. Examines a framework for integrating tax planning into accounting and business decisions. Prerequisite(s): ACCT 4150; junior standing. (Spring)

ACCT 4065/5065. Fraud Analytics — 3 hrs.

Examination of motivation, prevention, detection, investigation, and resolution of fraud. Prerequisite(s): ACCT 2120; ACCT 2130; ACCT 3120; ACCT 3122; ACCT 4160; ACCT 3140; MGMT 2080; junior standing. (Summer)

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ACCT 4070/5070. Government and Not-for-Profit Accounting — 3 hrs.

In-depth coverage of the theory and practice of governmental and not-for-profit accounting. Includes financial reporting requirements for government-wide consolidations/reconciliations and ACFR. Prerequisite(s): ACCT 2120; ACCT 2130; ACCT 3120; ACCT 3122; junior standing. (Fall and Spring)

ACCT 4080/5080. CPA Professional Pathway - Financial Accounting and Auditing Prep — 3 hrs.

Intensive study of financial accounting and auditing. Designed to assist accounting students as they prepare for the CPA examinations. Prerequisite(s): ACCT 3122; ACCT 3130; ACCT 3140; ACCT 4150; ACCT 4160; junior standing or admission to Master of Accounting program. (Spring)

ACCT 4082/5082. CPA Professional Pathway - Regulation and Tax Prep — 3 hrs.

Intensive study of business law and income tax. Designed to assist accounting students as they prepare for the CPA examination. Prerequisite(s): ACCT 3122; ACCT 3130; ACCT 3140; ACCT 4150; ACCT 4160; junior standing or admission to Master of Accounting program. (Spring)

ACCT 4084/5084. CPA Professional Pathway - Discipline Specialty Prep — 3 hrs.

Intensive study of discipline specialty concepts to prepare accounting students for the discipline specialty section of the CPA examination. Prerequisite(s): ACCT 3122; ACCT 3130; ACCT 3140; ACCT 4150; ACCT 4160; junior standing or admission to Master of Accounting program. (Spring)

ACCT 4150. Income Tax — 3 hrs.

Introductory course in federal income taxation as applied to individuals and businesses; emphasis on income and expense recognition, individual taxation, and property transactions. Prerequisite(s): ACCT 2120; ACCT 2130; C- or better in ACCT 3120; junior standing. (Fall and Spring)

ACCT 4160. Auditing — 3 hrs.

Principles, practices, and procedures used to determine reliability of financial records and statements. Prerequisite(s): ACCT 2120; ACCT 2130; C- or better in ACCT 3120; ACCT 3122; ACCT 3140; junior standing. (Fall and Spring)

ACCT 4162/5162. Advanced Auditing — 3 hrs.

Use of professional judgment, critical thinking, and professional skepticism in applying the principles, practices, and procedures used in conducting financial statement audits. Prerequisite(s): ACCT 2120; ACCT 2130; C- or better in ACCT 3120; ACCT 3122; ACCT 3140; ACCT 4160; junior standing. (Variable)

ACCT 6030. Accounting for Business Management — 3 hrs.

Use of accounting data in managerial decision-making process and in the analysis and control of business operations. Prerequisite(s): ACCT 2120 or equivalent; consent of MBA Director or MAcc Director. (Variable)

ACCT 6052. Advanced Tax Topics — 3 hrs.

Covers advanced issues related to income taxation of corporations, partnerships, S corporations and fiduciaries, and estate and gift taxes. Emphasis on conceptual understanding and problem solving. Prerequisite(s): ACCT 4150; admission to MAcc program. (Spring)

ACCT 6090. Graduate Internship in Accounting — 1-6 hrs.

Offers students enrolled in the Master of Accounting Program an opportunity to apply classroom learning in a professional accounting

environment. Offered on credit/no credit basis only. Prerequisite(s): admission to MAcc program; consent of MAcc Coordinator. (Fall, Spring, Summer)

ACCT 6092. Topics in Accounting: Fraud Examination — 1-3 hrs.

Selected topics in Accounting. May be repeated for maximum of 6 hours. Anticipated typical credit of 1 hour. Prerequisite(s): consent of MBA Director or admission to MAcc program. (Variable)

ACCT 6120. Financial Accounting Theory and Analysis — 3 hrs.

In-depth review and analysis of theoretical foundations of corporate financial reporting. Prerequisite(s): admission to MAcc program. (Fall)

ACCT 6140. Business Analytics in Accounting — 3 hrs.

Provides an in-depth understanding of data analytics in various areas of accounting (audit, tax, financial and managerial). Topics will include current analytics tools, management of analytics projects, as well as governance and internal control issues from current practice. Prerequisite(s): ACCT 3140; MGMT 2080; admission to MAcc program. (Fall)

ACCT 6170. Business Law for the Professional Accountant — 3 hrs.

Topics necessary for accounting professionals including contracts, UCC, commercial paper, secured transactions, and bankruptcy. Prerequisite(s): admission to MAcc program. (Fall)

ACCT 6175. Applied Professional Research — 3 hrs.

Study and application of research methods for accounting professionals in financial accounting, auditing, and tax with emphasis on communication and analytic skills. Prerequisite(s): ACCT 4150; ACCT 4160; admission to MAcc program. (Fall)

ACCT 6285. Individual Readings — 1-4 hrs.

Directed readings and reports. May be repeated for maximum of 4 hours. Prerequisite(s): consent of MBA Director and department head, or consent of MAcc Coordinator. (Fall, Spring, Summer)

ACCT 6289. Seminar in Contemporary Issues in Accounting — 3 hrs.

Seminar on topics offered on a rotating basis. Offerings include contemporary issues in auditing, tax planning, international tax and accounting, and accounting theory. May be repeated one time for additional credit. Prerequisite(s): consent of MBA Director or admission to MAcc program. (Variable)

ACCT 6299. Research — 1-3 hrs.

May be repeated for credit. Prerequisite(s): consent of MBA Director and department head, or consent of MAcc Coordinator. (Fall, Spring, Summer)

ACT SCI: Actuarial Science

TO MEET ANY COURSE PREREQUISITE, GRADE OF C- OR HIGHER IS REQUIRED IN THE PREREQUISITE COURSE.

Courses

ACT SCI 3731. Actuarial Examination Preparation — 3 hrs.

Strengthening student skills solving computational problems similar to those included on actuarial examinations. Analyzing and practicing appropriate choice of problem solving techniques and strategies. May be repeated for credit for preparation for different examinations. (Fall and Spring)

ACT SCI 3780/5780. Mathematics of Finance — 3 hrs.

Measurement of interest, annuities, yield rates, amortization and sinking funds, bonds, term structure of interest rates,

interest rate sensitivity, stocks and derivatives, elements of risk management. Prerequisite(s): MATH 1420; junior standing. (Same as MATH 3780/5780) (Spring)

ACT SCI 3790. Introduction to Actuarial Science — 1 hr.
Fundamental concepts of actuarial science; actuarial areas of practice; connections between coursework and actuarial practice; key competencies for actuaries, development of computing and communications skills in the context of actuarial science. Prerequisite(s): ACT SCI 3780/5780/MATH 3780/5780. (Variable)

ACT SCI 4735/5735. Actuarial Mathematics — 3 hrs.
Survival distributions and life tables, life insurance, life annuities, benefit premiums. Prerequisite(s): MATH 3752/5752; junior standing. (Fall)

ACT SCI 4739/5739. Topics in Actuarial Science — 3 hrs.
Topics from mathematics of life contingencies, risk theory, survival analysis, construction of actuarial tables, demography, graduation. May be repeated on different topic with consent of instructor. Prerequisite(s): MATH 3752/5752; junior standing. (Variable)

ACT SCI 4785/5785. Introduction to Financial Engineering — 3 hrs.
Financial derivatives, option pricing, Binomial model, Black-Scholes formula, Greeks and hedging, introduction to stochastic calculus, financial model simulation, Monte-Carlo valuation. Prerequisite(s): MATH 3752/5752; junior standing. (Variable)

ACT SCI 4788/5788. Loss Models — 3 hrs.
Applied probability methods used in modeling loss. Loss distributions, aggregate loss models, credibility theory and long term models. Prerequisite(s): MATH 3752/5752; STAT 3775/5775; junior standing. (Spring)

ACT SCI 6735. Advanced Actuarial Mathematics — 3 hrs.
Survival models for multiple state contingent cashflows, premium and policy valuation for long-term state-dependent coverages, joint life insurance and annuities, profit analysis, pension plans and retirement benefits, universal life insurance, embedded options in life insurance and annuity products. Prerequisite(s): ACT SCI 4735/5735. (Spring)

ACT SCI 6784. Predictive Analytics in Insurance I — 3 hrs.
Predictive modeling and forecast evaluation, exponential dispersion family, actuarial applications of generalized linear models, model validation and diagnostic tools, regression and classification trees, bagging trees and random forests, boosting trees, and measures for model comparison. Prerequisite(s): STAT 4786/5786; STAT 4772/5772. (Fall)

ACT SCI 6785. Predictive Analytics in Insurance II — 3 hrs.
Basic concepts of data pipeline, database management, relational databases, and data quality; applications of additive models, linear mixed models, neural networks, and Bayesian techniques in predictive analytics; accuracy, explainability, interpretability, and ethical foundations of predictive analytics models; communication and justification of a recommended analytics solution. Prerequisite(s): ACT SCI 6784. (Spring)

ACT SCI 6788. Advanced Loss Models — 3 hrs.
Construction and selection of parametric loss models, credibility, pricing and reserving for short-term insurance coverages, fundamentals of option pricing. Prerequisite(s): ACT SCI 4788/5788. (Spring)

ANTH: Anthropology Courses

ANTH 1001. Bones & Stones: The Science of Human Origins — 3 hrs.

This course will focus on the study of human origins employing scientific methods and theories derived from biological anthropology and archaeology. Students will get hands-on experience with various lines of scientific evidence to help develop a deeper understanding of their place in the world by understanding how we got here, tracing that route from our primate past, to becoming bipedal, tool-making, fire users who eventually spread across the globe and created increasingly complex societies. (Fall and Spring)

ANTH 1002. Introduction to Cultural Anthropology — 3 hrs.
Introduction to examining the human condition in cross-cultural perspective. Consideration of the diversity and commonality among human cultures and societies. Includes experiences and perspectives from a wide range of human groups by examining their technologies, economic systems, family life, political structures, art, languages, and religious beliefs and practices. (Fall and Spring)

ANTH 1003. Bones & Stones: The Science of Human Origins Laboratory — 1 hr.

This laboratory course is offered as a supplement to the course Bones and Stones: The Science of Human Origins. Laboratory exercises are designed to introduce students to the scientific method and explore topics including human variation, human and non-human primate anatomy, the primate/hominin fossil record, the archaeology of early humans and other resources to investigate processes that affect human origins. (Fall and Spring)

ANTH 2003. People of the Great Lakes — 3 hrs.
Survey of Great Lakes cultures and societies from the Ice Age to the 21st century. (Fall and Spring)

ANTH 2005. Archaeology for Beginners — 3 hrs.
Introduction to how archaeologists reconstruct past societies from artifacts and ruins. Covers archaeological techniques from excavation to lab analysis. (Fall and Spring)

ANTH 2006. Archaeology for Beginners Laboratory — 1 hr.
This laboratory course is offered as a required supplement and co-requisite to the course Archaeology for Beginners. This course provides a practical introduction to the methods and techniques used by archaeologists in the field and laboratory. Students can expect to learn and practice archaeological techniques outdoors. Corequisite(s): ANTH 2005. (Fall and Spring)

ANTH 2018. Food and Culture — 3 hrs.
This course examines the relationship between human food and culture from a holistic and comparative perspective. Key issues related to food, nutrition, and culture will be considered. Major topics include sociocultural and ecological underpinnings of human nutrition and the evolution of the human food ways and food systems; sociocultural, symbolic, and medical uses of food; food and ethnicity; food and class; food and gender; industrial food, fast food, and traditional food; the political economy of food overconsumption and malnutrition; food and equality; and global food justice. (Variable)

ANTH 2300. World Prehistory and the Rise of Civilizations — 3 hrs.
Archaeology of human evolution from the appearance of Homo sapiens to earth's earliest societies with an emphasis on cultural

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development of complex civilizations in the Middle East, Americas, Europe, Asia, and Africa. (Fall and Spring)

ANTH 2430. Bioarchaeology — 3 hrs.

This class focuses on the study of human skeletal remains from archaeological settings to aid in reconstructing the biological and cultural pasts of populations. The goals and objectives of this class are to provide the student with a basic knowledge of bioarchaeological theory, methods, and applications with an emphasis on the latest literature and research. The class will be grounded in the scientific approach. The student will leave the class with the ability to examine human skeletal remains with the intent of providing biocultural information about the identity of an individual and how it relates to the overall demographics of the population being studied. Prerequisite(s): ANTH 1001. (Odd Falls)

ANTH 3001. Language and Culture — 3 hrs.

Examination of how language use shapes and expresses cultural identity. Implications of linguistic diversity for world view, gender and ethnic identity, education, and cross-cultural communication. Prerequisite(s): PSYCH 1001 or SOC 1000 or ANTH 1002. (Variable)

ANTH 3010. Climate Change, Human Migration and Conflict — 3 hrs.

There is growing consensus among professionals in the intelligence and security fields that climate change has very real impacts on demographic displacement, vulnerability of growing masses of people to severe disasters (both natural and human-made) and that there are serious near- and long-term implications for national and global security. This course examines current and emerging forms of threats to nations and human communities that result, at least in part, from climate change. (Fall or Spring)

ANTH 3080/5080. Immigration and Transnationalism — 3 hrs.

Comparative multi-disciplinary perspective on international migration and immigrant settlement strategies, with a focus on Western Europe and the United States. Topics cover the main theoretical and contemporary debates within the field of international migration. Prerequisite(s): SOC 1000 or SOC 1060 or ANTH 1002; junior standing. [Same as SOC 3080/5080] (Variable)

ANTH 3102/5102. Culture, Disease, and Healing — 3 hrs.

Introduction to medical anthropology through examination of the interactions among culture, disease, and healing. Emphasis on non-Western medical systems. Topics include development of medical anthropology; the social fabric of health; the cultural context of health, illness, and disease. Prerequisite(s): SOC 1000 or ANTH 1002; junior standing. (Variable)

ANTH 3104/5104. Gender in Cross-Cultural Perspective — 3 hrs.

Evolutionary, biological, psychological, cognitive, social, and cultural theories of gender and gender inequality evaluated with respect to cross-cultural data. Prerequisite(s): PSYCH 1001 or SOC 1000 or ANTH 1002; junior standing. (Same as PSYCH 4608/5608) (Spring)

ANTH 3132. Native North America — 3 hrs.

Ethnographic survey of sociocultural systems developed by Native Americans north of Mexico. Emphasis on relationships that exist among ecological factors, subsistence techniques, social organizations, and belief systems; and the impact interactions with European and U.S. societies had on Indian lifestyles. (Same as HUM 3132) (Variable)

ANTH 3137. Native Central and South America — 3 hrs.

Ethnographic focus on the sociocultural systems of the indigenous peoples of Mesoamerica, Amazon Basin, and the Andean Highlands. Emphasis on inter-relationships among environment, history, social

organizations, and belief systems from a holistic and comparative perspective. (Same as HUM 3137) (Fall and Spring)

ANTH 3201. Physical Anthropology: History and Theory — 3 hrs.

Historical perspective on the development of evolutionary thought and how it changed ideas in physical anthropology, including the theoretical foundations of the "modern synthesis", the race concept, primate studies, paleoanthropology, and human ecology and adaptation. Prerequisite(s): ANTH 1001; junior standing. (Spring)

ANTH 3202/5202. Human Biological Variation — 3 hrs.

Exploration of the processes and origins of human biological variability, adaptability, and responses to a changing environment. Prerequisite(s): ANTH 1001; junior standing. (Spring)

ANTH 3420. Forensic Anthropology — 3 hrs.

Introduction to methods used in the recovery of unidentified human remains, their use in establishing identity, the post-mortem interval, pathological defects and traumatic insults and reconstructing the events surrounding death. Knowledge of the human skeletal anatomy preferred. Prerequisite(s): ANTH 1001. (Fall)

ANTH 3431/5431. Interpreting the Archaeological Record — 3 hrs.

Anthropological approaches to archaeology, including history of research; formation of archaeological record; research design, data collection, artifact analysis, classification, interpretation, dating, and inference. Prerequisite(s): ANTH 1001; ANTH 1002; 3 hours of 100/3000/4000-level archaeology or consent of instructor; junior standing. (Odd Falls)

ANTH 3440. Introduction to Museum Studies — 3 hrs.

Exploration of history, public mission, working environment, and ethical issues of museums. Discussion of practical skills and theoretical issues of museum studies, exposing students to broad range of museum types and career opportunities. (Same as HIST 3020) (Variable)

ANTH 3450. Archaeological Fieldwork — 3 hrs.

Introduction to field research techniques (survey, excavation, and mapping), laboratory processing, and hypothesis testing. Conducted in the field. Prerequisite(s): ANTH 1001; consent of instructor. (Summer)

ANTH 3500. Slavery and Human Trafficking — 3 hrs.

The purpose of this course is to explore ethnical citizenship through an examination of global slavery and human trafficking. We will begin with a brief look at historic slavery in Europe and Africa and some of the "timeless" aspects of slavery, including sexual abuse, relationships with free people, economic roles, access to freedom or manumission, and rebellion. We will then proceed to a more in-depth examination of African slavery in the Americas, including the United States, between roughly 1492 and the late 1800s. Finally, we will draw from our reflections on historic slavery to examine contemporary forms of human trafficking. Throughout the course we will discuss several common themes in accounts of enslaved and/or trafficked people: their legal status; demographics and work routines; treatment; "conditions of life"; community and culture; access to freedom; relationship to the culture and society of free people; historic and contemporary consumer demands for enslaved and trafficked humans; and life after liberation. (Odd Falls)

ANTH 3501. Research Experience in Anthropology — 1-3 hrs.

Research participation and/or independent supervised research in anthropology. May be repeated for maximum of 6 hours. Prerequisite(s): 15 hours in anthropology; consent of instructor and department head. (Fall, Spring, Summer)

ANTH 3502. Experience in Applied Anthropology — 1-6 hrs.

Work experience in applied anthropology. Requires prior consultation with instructor. Offered on credit/no credit basis only. Prerequisite(s): 12 hours in anthropology; consent of instructor and department head. (Fall, Spring, Summer)

ANTH 3503/5503. Readings in Anthropology — 1-3 hrs.

May be repeated only with consent of department. Prerequisite(s): 9 hours in anthropology; junior standing; consent of instructor and department head. (Variable)

ANTH 4015/5015. Qualitative Research — 3 hrs.

Development and application of the qualitative descriptive and analytic methods used in social science research. Prerequisite(s): junior standing. [Same as SOC 4015/5015] (Variable)

ANTH 4016/5016. Seminar in Anthropology — 3 hrs.

Selected problems within one subfield of anthropology (cultural, physical, archaeological, or anthropological linguistics). Topic listed in Schedule of Classes. May be repeated. Prerequisite(s): vary with topic; junior standing. (Variable)

ANTH 4198. Independent Study — 1-3 hrs.

May be repeated with department head approval. Prerequisite(s): written consent of instructor and department head. (Variable)

ANTH 4485. Anthropology Internship — 1-3 hrs.

Experiential learning through internship placement in an anthropology-related agency or position. Requires prior consultation with instructor. Intended for anthropology majors. May be repeated for maximum of three hours. A maximum of three credit hours of ANTH 4485 or 4585 may count toward the anthropology major. Prerequisite(s): 12 hours in anthropology (ANTH xxxx); major GPA of 2.80 or higher; junior standing; consent of instructor and department head. (Fall, Spring, Summer)

ANTH 4585. Practical Field Experience — 1-3 hrs.

Designed for students currently working in an anthropology-related agency or position. Provides an opportunity for students to apply academic material to their current jobs in anthropology or a related field. Intended for anthropology majors. May be repeated for maximum three hours. A maximum of three credit hours of ANTH 4485 or 4585 may count toward the anthropology major. Prerequisite(s): 12 hours in anthropology (ANTH xxxx); major GPA of 2.80 or higher; junior standing; consent of instructor and department head. (Fall, Spring, Summer)

ART: Art Studio

Courses

ART 1002. Visual Inventions — 3 hrs.

For non-Art majors. Studio course: experiences in critical responses to the visual arts through active involvement with various creative processes and media; relationship of the visual arts to other fields of human endeavor. (Variable)

ART 1011. Drawing I — 3 hrs.

Students in this beginning studio course develop technical and observational drawing skills by exploring a wide range of materials and subject matter. (Fall and Spring)

ART 1022. Drawing II — 3 hrs.

Students build on the formal elements and observational techniques explored in Drawing I, while color concepts and media are introduced. Emphasis is placed on further technical development and media experimentation. Prerequisite(s): ART 1011. (Fall and Spring)

ART 1222. Two-Dimensional Concepts — 3 hrs.

Beginning experiences in conceiving and making in two dimensions; emphasis on interaction between work and idea, skills in art making, and common vocabulary of art. (Fall and Spring)

ART 1333. Three-Dimensional Concepts — 3 hrs.

Beginning experiences in conceiving and making in three dimensions; emphasis on interaction between work and idea, skills in art making, and common vocabulary of art. (Fall and Spring)

ART 2020. Ceramics I — 3 hrs.

Introduction to basic techniques for forming and finishing ceramic objects. Development of handbuilding and wheelthrowing skills contributing to creative exploration. Assignments directed toward understanding both functional and sculptural aesthetic concerns. Prerequisite(s): Art majors/minors must complete the Foundations Sequence. (Fall and Spring)

ART 2030. Graphic Design I — 3 hrs.

Introduction to design-based problem-solving through lectures, projects, and critiques. Emphases on typography, layout, and images, with extensive computer use. Prerequisite(s): Art majors/minors must complete the Foundations Sequence. (Fall and Spring)

ART 2050. Painting I — 3 hrs.

Introduction to oil painting. Emphases are on observational painting from still life and exploring abstraction. Students will develop skills in color theory, design, and expression of content, and by completing assignments of increasing complexity. Prerequisite(s): Art majors/minors must complete the Foundations Sequence. (Fall and Spring)

ART 2060. Performance Art I — 3 hrs.

Emphasis on action over object production; exploration of interdisciplinary art making in real space and time as means of creative expression; examination of various approaches to performance including Dada, Fluxus, Japanese Butoh, and Conceptualism. Prerequisite(s): Art majors/minors must complete the Foundations Sequence. (Fall and Spring)

ART 2061. Animation, Video, and Sound Art — 3 hrs.

Students will use computer apps and applications to create time-based art. They will explore animation, video, and sound in a series of projects to be deployed on different platforms. This is an introductory course exploring these genres as a platform for personal expression and cultural inquiry using smartphones, tablets, and computers as tools for creation rather than passive consumptions. Prerequisite(s): art majors/minors must have Foundations sequence. (Fall)

ART 2070. Creative Photography I: Digital Photography — 3 hrs.

Introduction to photography as a means of creative expression. Basic camera operations, digital editing and printing. Assignments are directed toward the acquisition of basic skills and creative thinking. An understanding of photographic language in the development of a distinct personal vision is considered in the context of historical and contemporary photography. Digital SLR camera required. Prerequisite(s): Art majors/minors must complete the Foundations Sequence. (Fall and Spring)

ART 2080. Printmaking I: Strategies — 3 hrs.

Introduction to fine art print processes (digital, relief and intaglio) using contemporary formats such as zines, stenciling, large-scale prints; and collaboration. Prerequisite(s): Art majors/minors must complete the Foundations Sequence. (Fall and Spring)

ART 2082. Printmaking: Screenprint — 3 hrs.

Introduction to screenprinting processes. Prerequisite(s): Art majors/minors must complete the Foundations Sequence. (Variable)

Course Descriptions

ART 2083. Printmaking: Relief Processes — 3 hrs.

Beginning experiences in fine art printmaking, concentrating on relief processes including woodcut. Prerequisite(s): Art majors/minors must complete the Foundations Sequence. (Variable)

ART 2090. Sculpture I — 3 hrs.

Introduction to essential methods and materials of sculpture, including modeling, carving, casting, and metal and wood fabrication techniques. Prerequisite(s): Art majors/minors must complete the Foundations Sequence. (Fall and Spring)

ART 3001. Drawing III — 3 hrs.

Students pursue directed intermediate and advanced research in drawing with emphasis placed on the development of personal direction in content and the handling of media. Prerequisite(s): ART 1011 and ART 1022. (Variable)

ART 3011. Life Drawing — 3 hrs.

Drawing from model using variety of media. May be repeated for credit. Prerequisite(s): ART 1022. (Variable)

ART 3020. Ceramics II — 3 hrs.

Continuation of 600:050 with further development of student's understanding of firing techniques and formulation of clay and glazes. Prerequisite(s): ART 2020. (Fall and Spring)

ART 3022. Ceramics III — 3 hrs.

Focused exploration of lowfire, mid-temperature, and highfire ceramics techniques. Emphasis on development of individual's ideas and direction, and relating personal aesthetic concerns to historical and contemporary work. Prerequisite(s): ART 3020. (Fall and Spring)

ART 3023/5023. Ceramic Raw Materials and Glaze Calculations — 3 hrs.

In-depth understanding of origins and use of ceramic materials in making art. Development of clay bodies and formulation of glazes. Discussion of health and safety concerns when using ceramic materials in studio or classroom. Prerequisite(s): ART 3020; junior standing. (Variable)

ART 3030. Graphic Design II — 3 hrs.

Intensified exploration of design-based problem solving through lectures, projects and critiques, with emphases on type, imagery, and layout. Involves extensive computer use. Prerequisite(s): ART 2030. (Fall and Spring)

ART 3031. Graphic Design: Identity System Design — 3 hrs.

Intensive overview of the design of identity systems (such as integrated marketing systems), including logos or symbols, letterheads, packaging, signage and other applications. Involves extensive computer use. Prerequisite(s): ART 3030. (Variable)

ART 3032. Graphic Design: Digital Image Design — 3 hrs.

Lectures, problems and critiques in the development and use of pictorial imagery for use in the context of graphic design, both print and web. May include a wide range of digital techniques, such as montage, photography and animation. Involves extensive computer use. Prerequisite(s): ART 3030. (Variable)

ART 3033. Graphic Design: Typography — 3 hrs.

In-depth study of issues in typography through lectures, problems, and critiques, with extensive computer use. Includes type selection, typesetting, and page layout, from historic, technical, and esthetic perspectives. Prerequisite(s): ART 3030. (Variable)

ART 3034. Graphic Design: Publication Design — 3 hrs.

Studio problems in publication design; relevant grid, text and page formatting models addressed (classical, asymmetrical, and hybrid). Research and analysis of contemporary examples. Integration of

typography and image in books and magazines. Prerequisite(s): ART 3030. (Variable)

ART 3035. Graphic Design: Motion Design and Animation — 3 hrs.

Experiential problems in the planning, design and refinement of digitally animated productions, using type, imagery, sound, and other components. Involves extensive computer use. Prerequisite(s): ART 3030. (Variable)

ART 3036. Graphic Design: Web and Interactive Design — 3 hrs.

Lectures, problems and critiques on organizing, designing, and constructing web-based interfaces, with emphasis on e-commerce. Includes information architecture, navigation methods, and other aspects of interactive digital forms. Prerequisite(s): ART 3030. (Variable)

ART 3037. Book Arts — 3 hrs.

Lectures, problems and critiques on the invention and construction of innovative handmade book arts. Considers the content, form, and function of books. Prerequisite(s): Art majors and minors must have foundations sequence. (Variable)

ART 3038. Graphic Design: Portfolio Preparation — 3 hrs.

Advanced problems in organizing and presenting a graphic design portfolio in anticipation of professional interviews. Addresses self-assessment, portfolio structure and sequence. Prerequisite(s): ART 3030, and two additional 100/3000/4000-level graphic design studio courses. (Variable)

ART 3039. Graphic Design: User Experience Design — 3 hrs.

Students will be introduced to User Experience (UX) and User Interface (UI) Design for expanding design-critical thinking beyond visual creativity. Students will demonstrate various exercises to understand fundamental theories and methods within UX/UI design. With the completion of given tasks and practices, students will implement a project within UX/UI of a product and mobile App design. Prerequisite(s): ART 3030; junior standing. (Variable)

ART 3050. Painting II — 3 hrs.

Intermediate level course in oil painting. Students will develop conceptual approaches to content and abstraction through observational and process-based assignments. Prerequisite(s): ART 2050. (Fall and Spring)

ART 3055. Painting III — 3 hrs.

Advanced course in oil painting. Students will complete directed projects in abstraction and develop their personal expression with special emphasis on creating an independent series of work. Prerequisite(s): ART 3050. (Fall and Spring)

ART 3060. Performance Art II — 3 hrs.

Exploration of action-based artmaking with emphasis placed on site specific and durational works. Discussion of relationships between artist and audience, as well as the introduction of basic digital video editing. Prerequisite(s): ART 2060; junior standing. (Fall and Spring)

ART 3066/5066. Performance Art III — 3 hrs.

Focused exploration of action-based art with greater emphasis on self-direction. Directed study of contemporary time-based artwork. Strategies of live art documentation and development of a performance portfolio. Prerequisite(s): ART 3060; junior standing. (Fall and Spring)

ART 3070. Creative Photography II — 3 hrs.

Further exploration of digital photography as well as the introduction of traditional and experimental processes using light sensitive materials. Introduction of other camera formats including the 4x5 view camera (provided by the department). Assignments are directed to

encourage greater creative thinking and to explore the possibilities of photographic expression. Introduction to critical theory supports in-class critique. Prerequisite(s): ART 2070 or equivalent. (Fall and Spring)

ART 3077. Creative Photography III — 3 hrs.

Further exploration of fine art photography. Assignments explore the use of artificial lighting and alternative methods of image production and display. Investigation of a variety of other strategies will expand the aesthetic and conceptual possibilities of student work. Additional emphasis on critical theory. Prerequisite(s): ART 3070. (Fall and Spring)

ART 3080. Printmaking II: Applications — 3 hrs.

Intermediate exposure to fine art print processes (digital, screenprint, and lithography) with emphasis on contemporary applications involving artists' books, wearable and street art formats. Prerequisite(s): ART 2080. (Fall and Spring)

ART 3088. Printmaking III: Directions — 3 hrs.

Advanced use of fine art print processes (digital, relief, intaglio, screenprint, lithography and related technologies) emphasizing the use of color printmaking techniques and individual creative direction. Prerequisite(s): ART 3080. (Fall and Spring)

ART 3090. Sculpture II — 3 hrs.

Exploration of contemporary issues in sculpture through materials and processes selected by the individual. Emphasis on understanding interrelationships between specific concepts, forms, and materials. Prerequisite(s): ART 2090. (Fall and Spring)

ART 3099. Sculpture III — 3 hrs.

Focused exploration of concepts and media which reflect interests of student. Emphasis on developing a personal aesthetic and conceptual and critical base for continued work. Prerequisite(s): ART 3090. (Fall and Spring)

ART 4000. Undergraduate Studio — 1-6 hrs.

Advanced study in studio area: Ceramics, Drawing, Painting, Performance Art, Photography, Printmaking, or Sculpture. Credit to be determined by instructor at registration. May be repeated for credit. Prerequisite(s): 9 hours in chosen area; consent of instructor. (Fall and Spring)

ART 4010/5010. Professional Practices — 3 hrs.

Career preparation for the contemporary visual artist, designer, art educator, or art historian; preparation for graduate school, and professional roles and responsibilities. Prerequisite(s): junior standing. (Fall and Spring)

ART 4111. B.F.A. Project I — 3 hrs.

Investigation of individual concepts and techniques in studio preparation for Bachelor of Fine Arts exhibition. Prerequisite(s): admission to B.F.A. program; senior standing; consent of instructor. (Fall and Spring)

ART 4198. Independent Study — 1-6 hrs.

Students of outstanding ability are allowed to write a proposal for an independent project that cannot be done in regular university courses. A project form must be filled out with instructor and approved by the Department of Art and Graphic Design. Prerequisite(s): Art Studio students must have completed 9 hours in their studio concentration. Art History students must have completed three upper-level art history courses; all students must have a cumulative and Art GPA of 3.00. (Fall and Spring)

ART 4222. B.F.A. Project II — 3 hrs.

Investigation of individual concepts and techniques culminating in professional Bachelor of Fine Arts exhibition. Prerequisite(s): ART 4111; consent of instructor; B.F.A. exhibition must be scheduled concurrently. (Fall and Spring)

ART 4300/5300. Seminar: Critical Issues in Contemporary Art — 3 hrs.

Critical analysis and discussion of contemporary art. May be repeated once for credit. Prerequisite(s): admission to the B.F.A. degree program; junior standing; or consent of department head. (Variable)

ART 4400. B.F.A. Exhibition.

No credit. (Fall and Spring)

ART 6297. Practicum — 1-4 hrs.

May be repeated. (Variable)

ART 6299. Research.

Prerequisite(s): consent of department. (Fall and Spring)

ARTED: Art Education

Courses

ARTED 2600. The Responsive Art Educator — 3 hrs.

Building on their knowledge and experiences from methods and internship I courses, students learn to set up and organize the art classroom, and establish routines and procedures to support students through inclusive practices, while also being responsive to support the growth of each student. Focus on building relationships, engaging and motivating students, while setting high standards for achievement. Topics include classroom management, inclusive dispositions and actions, multimodal learning, and strategies for a safe and productive learning environment. Prerequisite(s): EDUC 2314 or consent of instructor. (Spring)

ARTED 4500. Contemporary Themes in Art Education — 3 hrs.

Contemporary themes in art education, or broader education issues that impact art education, will be addressed through practice, research, and art-making. Topics could include environmentalism, community-based art education, self-care practices, resilience, community engagement, etc. Prerequisite(s): EDUC 2314; EDUC 2414. Prerequisite(s) or corequisite(s): EDUC 3514/5514; EDUC 3614/5614; or instructor consent. (Fall)

ARTED 4600. Expressive Learning Assessment — 3 hrs.

Foundational information for the design, adaptation, and selection of classroom assessments that support a teacher's ability to improve instruction, utilize technology, and guide each student to achieve specific learning goals. Various purposes and types of assessments will be explored with special attention to content areas with a heavy emphasis on expressive and performance-based tasks. Students will consider the relationships between assessment, differentiation, and technology for all student needs including but not limited to culture, language, learning differences, and different abilities. (Spring)

ARTED 6000. Themes in Art Education — 3 hrs.

Designed to provide an overview of the field of art education in the United States, this course introduces central topics, themes, and scholars in art education through historical and contemporary readings of texts, media, and art. (Variable)

ARTED 6100. Holistic Approaches for Art Education — 3 hrs.

This course provides an overview of holistic research and theory related to the needs of children and young adults. This overview is designed to facilitate studying, critiquing and reflecting upon the art

Course Descriptions

of diverse cultures. Students will explore and investigate discourses about meaning making including creativity, and transformative and integrated learning. Prerequisite(s): acceptance to the M.A. in Art Education program or permission of the Instructor. (Variable)

ARTED 6200. Curriculum and Pedagogy in Art Education — 3 hrs.

This course will examine, explore, and apply theory and research of curriculum and pedagogy in art education. The curriculum and pedagogy theories addressed in this course are situated in both general education and art education in order to provide a variety of ways to think about curricular change. Prerequisite(s): acceptance into M.A. program in Art Education or permission of the instructor.

ARTED 6300. Research Methods in Art Education — 3 hrs.

This course will define and explore art education research approaches and techniques. The class will examine the qualitative research methods with a focus on traditional research methods in art education. Exemplars of current research in Art Education will be discussed. Students will develop competencies through readings, discussions and projects. Prerequisite(s): acceptance into the M.A. in Art Education program or permission of the instructor. (Variable)

ARTED 6500. Seminar in Teaching Art — 3 hrs.

Exploration of various topics in art education. Special emphasis on teaching and learning theories, media and methods. Satisfies special methods elective for the professional core. Required to be repeated for a maximum of 9 hours. (Variable)

ARTHIST: Art History

Courses

ARTHIST 1004. Visual Perceptions — 3 hrs.

For non-Art majors. Lecture course: experiences in critical responses to the visual arts through analyses of artworks and artistic processes; relationship of the visual arts to other fields of human endeavor. (Fall and Spring)

ARTHIST 1111. Survey of Art History I — 3 hrs.

Introduction to history of art; Ancient through Medieval. (Fall)

ARTHIST 1222. Survey of Art History II — 3 hrs.

Introduction to history of art; Renaissance through Modern. (Spring)

ARTHIST 4000/5000. Research Methods and Writing in Art History — 3 hrs.

Introduction to research methods and writing in art history. Cannot be used to satisfy art history requirements in the studio or art education emphases. Prerequisite(s): completion of Foundations Sequence; junior standing. (Variable)

ARTHIST 4002/5002. Ancient Near Eastern Art — 3 hrs.

Examination of various developments in the Ancient Near East (e.g., Mesopotamia, Anatolia, and the Levant), from formative periods to first millennium, primarily through art and architecture. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisites for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisites for non-art majors: junior standing. (Variable)

ARTHIST 4003/5003. Collections Care and Management — 3 hrs.

This course will present topics in museums collections management ranging from object/artifact handling, storage, loaning and conservation to museum ethics, acquisitions, policy-making and research to donors, fundraising, marketing, and education. In addition, the course will cover discussions of what constitutes a museum and

why museums collect. Museum professionals from both the UNI Museum and UNI Gallery of Art will present all topics, and classes will include an experiential component that will allow students a more personal involvement with historical artifacts and art objects. Students will be given the opportunity to work with a variety of museum professionals and will engage in real-world museum concerns. Prerequisite(s): junior standing. [Same as HIST 4003/5003] (Fall)

ARTHIST 4010/5010. Ancient Egyptian Art — 3 hrs.

Examination of Egyptian culture from early phases of Pre-Dynastic to first millennium, primarily through art and architecture. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisites for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisites for non-art majors: junior standing. (Variable)

ARTHIST 4020/5020. Ancient Greek Art — 3 hrs.

Examination of various developments in the Greek world from Bronze Age through Hellenistic Period, primarily through art and architecture. Prerequisite(s): for Art majors and Art history minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisite(s) for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisite(s) for non-Art majors: junior standing. (Variable)

ARTHIST 4030/5030. Ancient Roman Art — 3 hrs.

Examination of various developments in the Roman world, from Etruscan through Roman Imperial, primarily through art and architecture. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisite(s) for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisite(s) for non-Art majors: junior standing. (Variable)

ARTHIST 4040/5040. Medieval Art — 3 hrs.

Examination of various developments in Europe and Western Asia from Late Roman through Gothic, primarily through art and architecture. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisite(s) for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisite(s) for non-Art majors: junior standing. (Variable)

ARTHIST 4300/5300. Italian Renaissance Art — 3 hrs.

History of 14th, 15th, and 16th century Italian art. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisites for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisite(s) for non-Art majors: junior standing. (Variable)

ARTHIST 4302/5302. Northern Renaissance Art — 3 hrs.

Examination of Northern European art from the 14th-16th centuries. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisite(s) for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisite(s) for non-Art majors: junior standing. (Variable)

ARTHIST 4310/5310. 17th and 18th Century Art — 3 hrs.

History of Western art of the 17th and 18th centuries and the visual culture of the period. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisite(s) for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisite(s) for non-Art majors: junior standing. (Variable)

ARTHIST 4320/5320. 19th Century Western Art — 3 hrs.

History of the art, architecture and visual culture of Europe and the United States from the late 18th century to the end of the 19th century. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisite(s) for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisite(s) for non-Art majors: junior standing. (Variable)

ARTHIST 4322/5322. History of Photography — 3 hrs.

Survey of history and evolution of photography since its invention in 1839 to present day. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisites for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisites for non-Art majors: junior standing. (Variable)

ARTHIST 4330/5330. American Art — 3 hrs.

This course is an overview of the history of American art during the 20th century. We will explore the relationship between art and its social and cultural context during this period. Prerequisite(s): art foundations sequence; junior standing. (Variable)

ARTHIST 4340/5340. History of Design — 3 hrs.

Overview of European and American design since 1850. Primary emphasis on graphic design, with secondary focus on architectural and industrial design. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisites for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisites for non-Art majors: junior standing. (Variable)

ARTHIST 4350/5350. Early 20th Century Art — 3 hrs.

History of art, architecture and visual culture in Europe and the United States from the late 19th century to mid-20th century. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisite(s) for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisite(s) for non-Art majors: junior standing. (Variable)

ARTHIST 4352/5352. History of Performance Art — 3 hrs.

An examination of action based visual art in the 20th and 21st centuries produced by artists in Europe, the United States, and Asia. Prerequisite(s): For Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisite(s) for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisite for non-Art major: junior standing. (Variable)

ARTHIST 4362/5362. Late 20th Century and Contemporary Art — 3 hrs.

A topics-based exploration of global art, architecture and visual culture produced since 1945. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisite(s) for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisite(s) for non-Art majors: junior standing. (Variable)

ARTHIST 4608/5608. Arts of Africa — 3 hrs.

This course provides a survey of the visual arts of African peoples. We will examine the historical and contemporary visual culture produced by peoples from the selected countries in Africa, and examine continuities and disparities reflected in the Diaspora. Sculpture, pottery, textiles, architecture, painting, and performance will be considered from the perspective of their production and function within the social context. (Variable)

ARTHIST 4900/5900. Myth and Narrative in Art — 3 hrs.

Investigates depictions/translations of myth and narrative in art from ancient to modern times, exploring such concepts as time, story, episode, storyteller, viewer, and metaphor. Prerequisite(s): for Art majors and Art History minors: ARTHIST 1111; ARTHIST 1222; junior standing. Prerequisite(s) for Art Studio minors: ARTHIST 1111 or ARTHIST 1222; junior standing. Prerequisite(s) for non-Art majors: junior standing. (Variable)

ARTHIST 4950/5950. Race and Representation in Art — 3 hrs.

This course uses historical moments of cultural encounter to investigate the role of visual imagery in the production, mediation, conflict, translation, and reproduction of ideas about race, class, and gender. Prerequisite(s): Prerequisite(s) for Art and Graphic Design majors: ARTHIST 1222; junior standing. Prerequisite(s) for other majors: junior standing. (Variable)

ARTHIST 4999/5999. Art History Seminar — 3 hrs.

Focused investigation on topic or topics related to a specific area or time covered in general art history courses. Prerequisite(s): for Art majors and minors: ARTHIST 1111; ARTHIST 1222; three 100/3000/4000-level art history courses; junior standing; consent of instructor. Prerequisite(s) for non-Art majors: junior standing; consent of instructor. (Variable)

ASL: American Sign Language

Courses

ASL 3190. American Sign Language (ASL) I — 3 hrs.

Introduction to principles and use of American Sign Language. Prerequisite(s): sophomore standing or consent of instructor. (Fall and Spring)

ASL 3195. American Sign Language (ASL) II — 3 hrs.

Designed for students with basic communication skills in American Sign Language. Emphasis on advanced practice of American Sign Language and study of Deaf culture. Prerequisite(s): ASL 3190 (grade of C or better). (Fall and Spring)

ASL 3196. American Sign Language (ASL) III — 3 hrs.

Designed for students with intermediate communication skills in American Sign Language. Emphasis on advanced practice American Sign Language and study of Deaf culture. Prerequisite(s): successful completion of ASL 3190 and ASL 3195 (grade of C or better). (Variable)

AT: Athletic Training

Courses

AT 1010. Introduction to Athletic Training & Clinical Healthcare — 3 hrs.

Introduction to healthcare professions with emphasis on practice guidelines, policies and procedures, risk management, roles and responsibilities of healthcare professionals, and common illnesses and injuries. (Variable)

AT 1018. Prevention and Care of Athletic Injuries — 2 hrs.

Provides foundational athletic training content that is pertinent for students preparing to enter the athletic coaching or physical education field. Emphasis placed on orthopedic injury description, prevention, treatment, and recovery. Prerequisite(s): KINES 2050 or AT 3020. (Fall, Spring, Summer)

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AT 1019. Prevention and Care Laboratory — 1 hr.

Laboratory experiences in athletic injury prevention and care including taping and wrapping. Prerequisite(s) or corequisite(s): AT 1018. (Fall and Spring)

AT 2000. Clinical Healthcare Experience — 1 hr.

Practical experience in health care settings. May be repeated for maximum of 8 hours. (Fall and Spring)

AT 3000. Athletic Training Clinical Integration — 1-2 hrs.

Entry-level educational experiences in athletic training knowledge and skills including: 1) skill competencies tied to athletic training coursework, 2) clinical experience, 3) completion of clinical integration proficiencies, and 4) comprehensive learning. This course is to be taken over a minimum of four semesters and will include a clinical experience during each semester. (May be repeated for maximum of 8 hours). (Fall and Spring)

AT 3020. Clinical & Gross Human Anatomy — 3 hrs.

Clinically relevant anatomy of the human body which includes palpation, range of motion assessment, neurological testing, structure identification and function, as well as prosected gross human anatomy structure identification. (Spring)

AT 3030. Acute Care — 3 hrs.

Foundational theory, ethics, components, indications, and psychomotor skills of acute and emergency care. (Variable)

AT 3040. Foundations of Orthopedic Injury Assessment & Pathology I — 3 hrs.

This course provides a comprehensive introduction to the principles of tissue injury assessment and pathology. Students will explore the physiological and pathological responses to injury, including inflammation and tissue healing, following common musculoskeletal injuries and conditions. Emphasis will be placed on recognizing injury mechanisms, understanding histological and biomechanical changes in tissues, and applying assessment techniques to evaluate tissue injury. Prerequisite(s): AT 3020 or AT 3300. (Variable)

AT 3050. Foundations of Orthopedic Injury Assessment & Pathology II — 3 hrs.

Foundational recognition and understanding of injuries and conditions occurring to the upper extremities, torso, axial skeleton, and head. Prerequisite(s): AT 3040 or consent of instructor. (Variable)

AT 3091. Foundations of Pharmacology — 3 hrs.

Effects, indications, and contraindications of common therapeutic medications as it relates to general medical conditions. Prerequisite: department consent. (Variable)

AT 3193. Research Experiences — 1-6 hrs.

Conducting supervised research in a research team setting or mentoring setting with faculty, with presentation and publication of research as the goal. Topics for research may not duplicate a class project or the undergraduate thesis. May be repeated for a maximum of 6 hours. Highly recommended for students planning to enter graduate programs. Prerequisite(s): consent of instructor. (Fall and Spring)

AT 3300. Gross Human Anatomy — 3 hrs.

The exploration of human anatomy through human cadaver dissection. Prerequisite(s): Consent of AT Program. (Variable)

AT 4030/5030. Advanced Acute Care in Athletic Training — 3 hrs.

The theory, ethics, components, indications, and psychomotor skills of emergency care in athletic training. Evidence-based research and practices are explored in relation to standard practices. Prerequisite(s): Admission into the Professional Masters Athletic Training program. (Variable)

AT 4032/5032. Advanced Acute Care Clinical Skills — 1 hr.

Didactic and psychomotor skill instruction with practical examinations covering the material taught in AT 4030/5030. Prerequisite(s): Admission into the M.ATR. program. (Variable)

AT 4070. Foundations of Therapeutic Interventions & Rehabilitation — 3 hrs.

Foundational study of the effects, advantages, disadvantages, indications, contraindications, precautions, and the application parameters of therapeutic interventions. Prerequisite(s): AT 3050, AT 3300, or KINES 2050. (Fall)

AT 4072/5072. Advanced Therapeutic Interventions I Clinical Skills — 1 hr.

Didactic and psychomotor skill instruction with practical examinations covering the material taught in AT 4270/5270. Prerequisite(s): Admission into the M.ATR. program. (Variable)

AT 4075/5075. Advanced Therapeutic Interventions II — 3 hrs.

Advanced study of the effects, advantages, disadvantages, indications, contraindications, precautions, and the application parameters of therapeutic interventions of the physically active. Prerequisite(s): AT 4270/5270; junior standing. (Variable)

AT 4082/5082. Advanced Therapeutic Interventions II Clinical Skills — 1 hr.

Didactic and psychomotor skill instruction with practical examinations covering the material taught in AT 4075/5075. Prerequisite(s): Admission into the M.ATR. program. (Variable)

AT 4100/5100. Advanced Clinical Anatomy — 3 hrs.

Didactic and psychomotor skills instruction with practical examinations covering the material necessary to begin the athletic training clinical experience, and clinical anatomy of the human body including palpation, range of motion, and structure identification and function. Prerequisite(s): Admission into the Master of Athletic Training program. (Variable)

AT 4130. General Medical Conditions — 3 hrs.

Foundational study of general medical conditions and disabilities commonly seen by healthcare providers. Prerequisite(s): AT 3020, AT 3300, or KINES 2050. (Variable)

AT 4160. Evidence Based Practice in Health Care — 3 hrs.

This course will provide an in-depth analysis of the concept and process of evidence-based decision making as it applies to health care. The concept de-emphasizes sole reliance on non-systematic approaches such as intuition, experience, and mechanism based reasoning as justification for making clinical decisions, and emphasizes the incorporation of science, systematic outcomes assessment, and patient values into the process. Students will learn the skills and the application of formal rules of evidence in reviewing clinical research and assessing patient outcomes. Students will search and review current literature, including experimental and observation research, case studies, position statements, comprehensive reviews, and clinical guidelines that are directed toward the treatment and rehabilitation of musculoskeletal injuries. Prerequisite(s): junior standing. (Spring)

AT 4210/5210. Pathoetiology and Orthopaedic Assessment I — 3 hrs.

In-depth study of pathological, etiological, and neuromuscular mechanisms of musculoskeletal injuries with emphasis on advanced orthopaedic assessment techniques of the lower body. Prerequisite(s): Admission into the Master of Athletic Training program. (Variable)

AT 4215/5215. Pathoetiology and Orthopaedic Assessment I Clinical Skills — 1 hr.

Didactic and psychomotor skill instruction with practical examinations covering the material taught in AT 4210/5210. Prerequisite(s): Admission into the M.A.T.R. program. (Variable)

AT 4220/5220. Pathoetiology and Orthopaedic Assessment II — 3 hrs.

In-depth study of pathological, etiological, and neuromuscular mechanisms of musculoskeletal injuries with emphasis on advanced orthopaedic assessment techniques of the upper body. Prerequisite(s): Admission into the Master of Athletic Training program. (Variable)

AT 4225/5225. Pathoetiology and Orthopaedic Assessment II Clinical Skills — 1 hr.

Didactic and psychomotor skill instruction with practical examinations covering the material taught in AT 4220/5220. Prerequisite(s): Admission into the M.A.T.R. program. (Variable)

AT 4270/5270. Advanced Therapeutic Interventions I — 3 hrs.

Advanced study of the effects, advantages, disadvantages, indications, contraindications, precautions, and the application parameters of therapeutic interventions of the physically active. Prerequisite(s): AT 4100/5100. (Variable)

AT 6000. Integrated Clinical Experiences — 1-4 hrs.

Comprehensive educational experiences in athletic training psychomotor and cognitive domains, and clinical proficiencies to be supervised/mentored in multiple practicum sections through athletic training field experiences, integrated teaching lab activities, and skills-based assessment. May be repeated; 11 credit hours required, may be repeated up to 13 credit hours. Prerequisite(s): Admission into the Masters Athletic Training program. (Fall, Spring, Summer)

AT 6060. Athletic Training Organization & Professional Responsibility — 3 hrs.

Theoretical and practical study of organization, administration, and professional development and responsibility in the field of athletic training. Prerequisite(s): Admission into M.A.T.R. program. (Variable)

AT 6130. General Medical Assessment & Intervention — 3 hrs.

Study of general medical conditions and disabilities commonly seen by certified athletic trainers. Prerequisite(s): Admission into M.A.T.R. program. (Variable)

AT 6255. Health Assessment & Preventive Practices — 3 hrs.

Advanced theoretical and practical study of strategies and programs to prevent the incidence and/or severity of injuries and illnesses and optimize the overall health and quality of life of patients. This includes nutrition and physical activity in maintaining a healthy lifestyle and preventing chronic disease. Prerequisite(s): Admission to the M.A.T.R. program. (Variable)

AT 6260. Gross Human Anatomy & Orthopedic Surgical Interventions — 3 hrs.

Exploration of human anatomy through human cadaver dissection, along with an in-depth study of pathological, biomechanical, and neuromuscular mechanisms of musculoskeletal injuries and the study of orthopedic surgical interventions commonly performed for musculoskeletal injuries. Prerequisite(s): Admission to the M.A.T.R. program. (Variable)

AT 6275. Mental Health Care in Athletic Training Practice — 3 hrs.

This course promotes the understanding of mental health care as it relates to athletic training practice and the coordination of care as it pertains to athletic training patients. The focus of this course includes

the understanding of mental health disorders, diagnostic criteria, appropriate referral to qualified health care providers, and treatment options. The course will also address patient response to orthopedic injury and its interdependent relationship with activity limitations and participation restrictions. Prerequisite(s): Admission to the M.A.T.R. program. (Variable)

AT 6289. Seminar in Athletic Training — 1-8 hrs.

Special topics in athletic training and/or other allied health professions as indicated in the Schedule of Classes. May be repeated for credit. Prerequisite(s): Admission to the M.A.T.R. program. (Fall and Spring)

AT 6300. Advanced Gross Human Anatomy — 3 hrs.

The exploration of human anatomy through human cadaver dissection. Prerequisite(s): consent of AT Program. (Variable)

AT 6550. Advanced Athletic Training Clinical Skills — 2 hrs.

Didactic and psychomotor skills instruction with practical examinations covering the material necessary to begin the athletic training clinical experience. Prerequisite(s): Admission into the M.A.T.R. program. (Variable)

BIOL: Biology Courses

BIOL 1012. Life: The Natural World — 3 hrs.

Examines the natural world as a system, emphasizing interactions among living organisms and with their environments, with a focus on human-environmental interactions, and the importance, origins, and maintenance of biodiversity. Content theme is centered on building an appreciation for the ways scientists work with and learn about the natural world. Students will comprehend scientific studies and infer meaning from graphical displays of data and apply knowledge of biological systems to contemporary problems, such as greenhouse gasses, impacts of climate change, the biodiversity crisis, and disease transmission. Discussion, 3 periods. For biology majors and minors counts only for university elective credit. (Fall and Spring)

BIOL 1013. Life: The Natural World - Lab — 1 hr.

This course provides activities illustrating the importance, origins, and maintenance of biodiversity with a focus on the interactions among organisms and between organisms and the environment. The laboratory will emphasize the process of science, and students will practice skills scientists use to answer questions about the natural world. Lab, 2 periods. For biology majors and minors counts only for university elective credit. Prerequisite(s) or corequisite(s): BIOL 1012. (Fall and Spring)

BIOL 1014. Life: Continuity and Change — 3 hrs.

Introduction to contemporary topics in the life sciences with a focus on the biological processes that allow life to continue through generations and those that cause change through time. Emphasis on gene structure and function and applications of biology to human concerns. Content theme is centered on building an appreciation for the ways scientists work with and learn about the processes of life. Students will apply knowledge of biological concepts to contemporary and ethical issues, such as diseases and treatments, genetic engineering, cloning, and inheritance of family traits. Discussion, 3 periods. For biology majors and minors counts only for university elective credit. (Fall and Spring)

BIOL 1015. Life: Continuity and Change - Lab — 1 hr.

Activities illustrating the role of biology in our present society. Emphasis is placed on activities investigating life science concepts related to human concerns, including human genetics and variation. DNA and DNA fingerprinting, human disease and disease

Course Descriptions

transmission, and basic cellular function. The laboratory will emphasize the process of science, and students will practice skills scientists use to answer questions about the processes of life. Lab, 2 periods. For biology majors and minors counts only for university elective credit. Prerequisite(s) or corequisite(s): BIOL 1014 or equivalent. (Fall and Spring)

BIOL 1033. Principles of Microbiology — 4 hrs.

Basic concepts and practical applications of microbiology in daily life; health and disease including basic aspects of immunology and host-microbe interactions. Designed for students majoring in areas other than the sciences. For biology majors and minors counts only for university elective credit. Sections may be offered exclusively for nurses in training. Discussion, 3 periods; lab, 2 periods. (Fall and Spring)

BIOL 1101. Principles of Anatomy & Physiology I — 4 hrs.

Principles of the structure and function of organ systems of the human body. Basic biological concepts are covered including cell structure and function (including cell division and cellular metabolism), and DNA structure and function (including mutations). Anatomical terminology and directional terms, human histology and organ systems, including the skeletal system and articulations, the muscular system, and the nervous system are included. Limited to students entering the UNI BSN program, traditional-track pre-nursing, pre-sonography, pre-radiography, or 3+1 Health Sciences. Others must have the consent of the department head. Not for biology, kinesiology, or other majors pursuing most graduate-level professional medical programs. Students pursuing occupational therapy programs should consult with prospective programs to determine if BIOL 1011 and BIOL 1102 are acceptable for admission. Discussion, 3 periods; lab, 2 periods. Prerequisite(s) or corequisite(s): CHEM 1010. (Fall and Spring)

BIOL 1102. Principles of Anatomy & Physiology II — 4 hrs.

Continuation of BIOL 1101. Human organ systems covered include a continuation of the nervous system, the cardiovascular system, lymphatic and immune system, respiratory system, digestive system, urinary system (including acid-base balance), endocrine system, and reproductive systems, including cell division and basic concepts of genetics. Limited to students entering the UNI BSN program, traditional-track pre-nursing, pre-sonography, pre-radiography, or 3+1 Health Sciences. Others must have the consent of the department head. Not for biology, kinesiology, or most other majors pursuing graduate-level professional medical programs. Students pursuing occupational therapy programs should consult with prospective programs to determine if BIOL 1101 and 1102 are acceptable for admission. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): C- or better in BIOL 1101 or equivalent. (Fall and Spring)

BIOL 1103. Pathophysiology — 3 hrs.

Discussion of disease and its effects on the structure and function of the human body. Application of material from BIOL 1101 and 1102. For students entering the UNI BSN program. Others must have the consent of the department head. Discussion, 3 periods. Prerequisite(s): CHEM 1010 or equivalent; C- or better in both BIOL 1101 and BIOL 1102. (Fall and Spring)

BIOL 1200. Biological Diversity and Conservation — 3 hrs.

Biological diversity (biodiversity) is essential for healthy, functioning ecosystems that form the basic life support system for all living creatures on earth, including humans. The current reduction of biodiversity (extinction rate) is estimated between 100-1000 times the historical background rate and presents a potentially existential challenge for human society. In this course, we will examine

biodiversity: how it is measured, the causes and effects of the current rate of its decrease, and efforts to conserve the remaining biodiversity and difficulties these efforts face. (Variable)

BIOL 2051. General Biology: Organismal Diversity — 4 hrs.

Study of organismic biology emphasizing evolutionary patterns and diversity of organisms and interdependency of structure and function in living systems. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): BIOL 2051 and BIOL 2052 cannot be taken concurrently. (Fall and Spring)

BIOL 2052. General Biology: Cell Structure and Function — 4 hrs.

Introduction to the properties and functions of biological molecules, organization of living cells, production and utilization of energy, and development of multicellular organisms. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): BIOL 2051 and BIOL 2052 cannot be taken concurrently. (Fall and Spring)

BIOL 3100. Evolution, Ecology and the Nature of Science — 3 hrs.

Understanding how science works and using critical thinking to distinguish between science and pseudoscience, taught through exploration of unifying principles of biology: how organisms interact with each other and the environment, the genetic continuity of life, and how past history affects life. Readings and student-led discussions explore concepts in detail. Prerequisite(s): BIOL 2051; BIOL 2052; CHEM 1110 and CHEM 1120, or CHEM 1130. BIOL 3100 and BIOL 3140 cannot be taken concurrently. (Fall and Spring)

BIOL 3101. Human Anatomy and Physiology I — 4 hrs.

Comprehensive study of the structure and function of organ systems of the human body. Preparation for graduate-level medical programs, including physician (such as MD, DO, and PA), dental, chiropractic, and physical therapy programs, or for students in biology, biology dual-degree programs in nursing or medical lab-science, or other university-approved programs. Others must have the consent of the department head. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): BIOL 2051; BIOL 2052; CHEM 1110 and CHEM 1120, or CHEM 1130, or consent of department head. (Fall and Spring)

BIOL 3102. Human Anatomy and Physiology II — 4 hrs.

Continuation of BIOL 3101 or BIOL 3106. Preparation for graduate-level medical programs, including physician (such as MD, DO, and PA), dental, chiropractic, and physical therapy programs, or for students in biology, biology dual-degree programs in nursing or medical lab-science, or other university-approved programs. Others must have the consent of the department head. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): C- or better in BIOL 3101. (Fall and Spring)

BIOL 3106. Vertebrate Anatomy — 4 hrs.

Consideration of the origin and evolution of vertebrates and comparison of vertebrate structure and function. Active participation in dissection is mandatory. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): BIOL 2051; BIOL 2052; CHEM 1110 and CHEM 1120, or CHEM 1130. (Fall)

BIOL 3108. Medical Histology — 4 hrs.

Microscopic study of cells and tissues from various organ systems. Integration of gross anatomy, physiology and pathology by illustrating how cellular/tissue structure is related to organ function/dysfunction. Examples from normal and diseased tissues Discussion, 2 periods; lab, 4 periods. Prerequisite(s): BIOL 2051; BIOL 2052; CHEM 1110 and CHEM 1120, or CHEM 1130. (Variable)

BIOL 3109/5109. Plants of North America — 4 hrs.

An introduction to plant identification using methods and tools to describe and classify flowering plants found in North America. Students will learn to survey, collect, dissect, and describe vascular plants found in their natural habitat. Discussion 2 periods, lab 4 periods. Prerequisite(s): BIOL 2051; junior standing. (Odd Falls)

BIOL 3120. Plant Diversity and Evolution — 4 hrs.

Form and function in vegetative and reproductive organs in all plant divisions, from algae to flowering plants, and their importance in evolutionary thought and plant classification. Lecture, 3 periods; lab, 2 periods. Prerequisite(s): BIOL 2051; BIOL 2052; CHEM 1110 and CHEM 1120, or CHEM 1130. (Spring)

BIOL 3140. Genetics — 4 hrs.

Analytical approach to classical, molecular, and population genetics. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): BIOL 2051; BIOL 2052; CHEM 1110 and CHEM 1120, or CHEM 1130. BIOL 3100 and BIOL 3140 cannot be taken concurrently. (Fall and Spring)

BIOL 3147. Cancer and Emerging Infectious Diseases — 3 hrs.

Cellular and molecular study of cancer, its epidemiology and identification, standard and novel cancer treatments; examination of emerging and re-emerging infectious diseases, their causative organisms, diagnostic procedures, treatments, and prognosis. Discussion, 3 periods. Prerequisite(s): BIOL 2051; BIOL 2052; CHEM 1110 and CHEM 1120, or CHEM 1130. (Spring)

BIOL 3151. General Microbiology — 4 hrs.

Physiology, morphology, taxonomy, immunology, and pathogenicity of microbes, with applications to medicine, agriculture, sanitation, and industry. Discussion, 2 periods; lab, 4 periods. Prerequisite(s): BIOL 2051; BIOL 2052; CHEM 1110 and CHEM 1120, or CHEM 1130. (Fall and Spring)

BIOL 3160. Field Zoology of Vertebrates — 4 hrs.

Identification and natural history of Iowa vertebrates. Emphasis on field trips. Discussion, 2 periods; lab and field work, 6 periods. Prerequisite(s): BIOL 2051; BIOL 2052; CHEM 1110 and CHEM 1120, or CHEM 1130. (Spring)

BIOL 3170. Entomology — 3 hrs.

Introduction to the fascinating world of insects, focusing on their diversity, ecology and interactions with humans, including insect-borne diseases and forensic entomology. Discussion, 2 periods; lab, 2 periods. Prerequisite(s): BIOL 2051; BIOL 2052; CHEM 1110 and CHEM 1120, or CHEM 1130. (Even Falls)

BIOL 3174. Field Biology: _____ — 1-3 hrs.

Selected topics in field biology, emphasizing hands-on techniques for field observation, and testing of evolutionary and ecological hypotheses. Offered both on- and off-campus in flexible format. Topics and hours listed in Schedule of Classes. May be repeated for credit on different topic. Prerequisite(s): vary with topic. (Variable)

BIOL 3179. Cooperative Education — 1-6 hrs.

Up to 12 hours of ungraded credit (credit/no credit basis) may be taken as university electives. (Fall, Spring, Summer)

BIOL 3185. Readings in Biology — 1-3 hrs.

Independent readings in biology from selected list approved in advance. Maximum of 3 hours for biology major. Prerequisite(s): consent of department. (Fall, Spring, Summer)

BIOL 3189. Seminar — 1-2 hrs.

(Variable)

BIOL 3190. Undergraduate Research in Biology — 1-3 hrs.

Research activities under direct supervision of Biology faculty members. Credit determined prior to registration based upon student proposal with agreement of faculty advisor. May be repeated. Prerequisite(s): BIOL 2051; BIOL 2052; sophomore standing; consent of department. (Fall, Spring, Summer)

BIOL 3191. Senior Thesis — 1 hr.

Senior research thesis. Open only to, and required for, students pursuing the B.S. Biology or B.A. Biology Honors Emphasis. Prerequisite(s): consent of department head. (Fall, Spring, Summer)

BIOL 4105/5105. Wildlife Ecology and Management — 4 hrs.

Applied population management of game and nongame wildlife. Lab emphasizes field techniques, population modeling, and habitat management planning. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Odd Falls)

BIOL 4108/5108. Biodiversity Conservation Policy — 3 hrs.

Review of laws and policies affecting endangered species, ecosystem management, and biodiversity conservation in the United States. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Even Springs)

BIOL 4114/5114. Comparative Animal Physiology — 4 hrs.

Physical and chemical basis of cellular/organ functions across various animal phyla. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): BIOL 3100; BIOL 3140; CHEM 2040 or CHEM 2210; junior standing. (Even Falls)

BIOL 4116/5116. Neurobiology — 3 hrs.

Survey of vertebrate nervous systems. Examination of several levels of organization ranging from molecules to neurons to larger systems in the brain. Discussion, 3 periods. Prerequisite(s): BIOL 3100; BIOL 3140; CHEM 2040 or CHEM 2210; junior standing. (Spring)

BIOL 4128/5128. Cell Biology — 4 hrs.

Foundation in cell structure, organization, and function, with emphasis on signal transduction, cell trafficking and cell cycle control. Lab will emphasize developing laboratory skills and improving analytical and writing abilities. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): BIOL 3100; BIOL 3140; CHEM 2040 or CHEM 2210; junior standing. (Spring)

BIOL 4129/5129. Genomics — 3 hrs.

Genome sequencing, analysis of sequence variation, sequencing for disease diagnosis, comparative genomics, personal genomics, the epigenome in disease development, analysis of gene expression. Discussion, 2 periods; lab, 2 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Even Falls)

BIOL 4130/5130. Genetic Technologies in Medicine — 3 hrs.

Study of genetic technologies in medicine, including causes of human genetic disorders, screening and diagnosis, genomic profiling, personalized medicine, genetic therapies, and ethics. Discussion, 2 periods; lab, 4 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Odd Springs)

BIOL 4137/5137. Advanced Human Physiology — 4 hrs.

A study of the cellular mechanisms in select human organ systems. Class explores in detail the underlying molecular and physical mechanisms in the endocrine, neuronal, renal, and three types of muscular tissue. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): BIOL 3100; BIOL 3140; CHEM 2040 or CHEM 2210; junior standing. (Odd Falls)

Course Descriptions

BIOL 4142/5142. Evolutionary Biology — 3 hrs.

Conceptual overview of evolutionary theory, mechanisms of evolutionary process, speciation and major evolutionary events. Discussion, 3 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Spring)

BIOL 4144/5144. Virology — 4 hrs.

Introduction to virus structure, replication, genetics, pathogenicity, host interactions, detection, epidemiology, evolution, and virology methods. Health, agriculture, research and industry applications. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Even Springs)

BIOL 4146/5146. Developmental Biology of Animals — 4 hrs.

Major concepts and central questions of animal development and controlling mechanisms. Laboratory emphasis on experimental inquiry and developmental anatomy. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Spring)

BIOL 4150/5150. Immunology — 4 hrs.

Focus on multiple levels of human immunity, from organs/cells to molecular events. Basic immunology and relationships between immunology and various disease states. Laboratory experiences include many commonly-used immunology techniques. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Fall)

BIOL 4157/5157. Biostatistics — 3 hrs.

Introduction to methods used to analyze and interpret quantitative biological data. Emphasis on parametric statistics; use of "R" software for data analysis and presentation. Lecture, 2 hours; lab, 2 hours. Prerequisite(s): MATH 1140, or MATH 1120 and MATH 1130, or MATH 1420, or STAT 1772, or equivalent; BIOL 3100; BIOL 3140; junior standing. (Fall)

BIOL 4164/5164. Mammalogy — 4 hrs.

Biology of mammals, including evolutionary history, zoogeography, ecology, and diversity. Laboratory emphasis on identifications, natural history, and field techniques. Lecture, 3 periods; lab and field, 3 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Fall)

BIOL 4167/5167. Conservation Biology — 3 hrs.

Human impacts on biodiversity, extinction, conservation of endangered species, protected areas, ex situ conservation, private land conservation, ecological economics. Lecture/discussion, 3 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Spring)

BIOL 4168/5168. Ecology — 4 hrs.

Principles of organismal adaptation, species interactions, and population, community, and ecosystem structure/dynamics. Lab emphasizes student-led experiments, data analysis, and scientific writing. Lecture/discussion, 3 periods; lab, 3 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Fall)

BIOL 4172/5172. Developmental Plant Anatomy — 4 hrs.

Structure and function of flowering plants, with emphasis on cell and organ development. Lecture, 2 periods; lab, 4 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Even Falls)

BIOL 4180/5180. Restoration Ecology — 4 hrs.

Ecological principles applied to restoration of degraded ecosystems. Lab covers hands-on techniques in regional restoration and reconstruction. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): BIOL 3100; BIOL 3140; junior standing. (Odd Springs)

BIOL 4198. Independent Study — 1-6 hrs.

(Fall, Spring, Summer)

BIOL 6202. Graduate Colloquium and Scientific Skills — 2 hrs.

Regular presentations by students, faculty members, or visitors on biological topics combined with instructional guidance to build scientific literacy, writing, and statistical skills. Taken each semester for four semesters for maximum of 8 hours. Discussion, 2 periods. (Fall and Spring)

BIOL 6230. Projects in Biology — 1-6 hrs.

Credit determined at registration. Projects in biology for graduate students. May be repeated. Prerequisite(s): consent of department. (Fall, Spring, Summer)

BIOL 6240. Advanced Cellular and Molecular Biology — 3 hrs.

Selected topics concerning understanding of function of living organisms at molecular and cellular level: regulatory mechanisms, recombinant DNA techniques, gene expression, and genetics of diseases. Lecture/discussion, 3 periods. May be repeated on different topic. Prerequisite(s): consent of instructor. (Odd Springs)

BIOL 6250. Advanced Physiology and Development — 3 hrs.

Selected topics concerning understanding of organ, organ system, and organism structure and function: immune system, cellular signaling mechanisms, photosynthesis, and cell motility and development. Lecture/discussion, 3 periods. May be repeated on different topic. Prerequisite(s): consent of instructor. (Odd Falls)

BIOL 6260. Advanced Ecology — 3 hrs.

Selected topics of ecology, concerning the understanding of relationships among organisms, and between organisms and their environments (natural or artificial): physiological ecology, conservation biology, and aquatic ecology. Lecture/discussion, 3 periods. May be repeated on different topic. Prerequisite(s): consent of instructor. (Even Springs)

BIOL 6270. Advanced Systematics and Evolutionary Biology — 3 hrs.

Selected topics concerning understanding of systematic and evolutionary relationships among organisms and evolutionary biology: evolutionary theory, systematics, and origin of life. Lecture/discussion, 3 periods. May be repeated on different topic. Prerequisite(s): consent of instructor. (Even Falls)

BIOL 6289. Seminar — 1 hr.

May be repeated for credit. (Variable)

BIOL 6292. Research Methods in Biology — 1 hr.

Introduction to research methods in biology. Emphasis on literature review, proposal preparation, and manuscript style. Discussion, 1 period. (Fall and Spring)

BIOL 6297. Practicum — 2 hrs.

May be repeated. (Variable)

BIOL 6299. Research.

Prerequisite(s): consent of department. (Fall, Spring, Summer)

BIOL 629R. Directed Research.

(Fall, Spring, Summer)

BUSINESS: Business Administration, Interdepartmental

Courses

BUSINESS 1000. Introductory Seminar for Business Professionals.

0 hrs. Required for new business majors, an introduction to the Wilson College of Business curriculum, learning resources, and academic expectations; exploration and identification of career goals; introduction to the professional expectations of the corporate world. Pass/no credit only. (Fall)

BUSINESS 2000. Business Professionals in Training.

0 hrs. Focuses on the professional skills expected by employers; includes self-awareness of personal values/traits; assessment of communication, interpersonal, and thinking skills; career management; knowledge of business enterprise; business professionalism. Pass/no credit only. Prerequisite(s): BUSINESS 1000 or consent of Wilson College of Business advisor; pre- or declared business majors only. (Fall and Spring)

BUSINESS 2100. Global Skills: (topic) — 3 hrs.

This class is set up with a study abroad as its focus, which will provide students with hands-on learning experiences designed to increase understanding of another cultural and economic environment different from their own. Through a variety of assignments and site visits, students will gain an invaluable introduction to various countries; their ecology, history and geography, as well as current cultural, business, and, in some cases, environmental practices. (Variable)

BUSINESS 3000. Intermediate Professional Skills: (topic).

0 hrs. Experiential course focuses on the professional skills expected by employers; may include self-awareness of personal values/traits; assessment of communication, interpersonal, and thinking skills; career management; business professionalism; professional use of business software. Topics vary by section and semester. Pass/no credit only. Prerequisite(s): BUSINESS 2000 or consent of Wilson College of Business advisor; may be repeated in subsequent semesters; business majors only. (Fall and Spring)

BUSINESS 3025. Business Analysis Techniques — 3 hrs.

How to make good decisions for an organization using quantitative and qualitative methods. Topics include probability, decision theory, critical thinking, marginal analysis, inventory and project management, discrete and continuous distributions, sampling distribution theory, confidence intervals, hypothesis testing, and linear regressions. Prerequisite(s): admission to the Bachelor of Applied Science in Managing Businesses and Organizations major. (Variable)

BUSINESS 3030. Accounting Concepts — 3 hrs.

How to keep track of an organization's financial resources. Students will learn about accounting procedures and practice the skills involved in financial and managerial accounting. Prerequisite(s): admission to the Bachelor of Applied Science in Managing Businesses and Organizations major. (Variable)

BUSINESS 3035. Information Systems for Professionals — 3 hrs.

How to manage information as an organizational resource, beginning with an overview of the systems that produce information and help organizations use it effectively. Topics include storing, organizing, analyzing, securing, and protecting information for an array of business processes. Prerequisite(s): admission to the Bachelor of

Applied Science in Managing Businesses and Organizations major. (Variable)

BUSINESS 3050. The Art of Managing People at Work — 3 hrs.

This course focuses on the recruitment, retention and development of an organization's most important resource...its people. Discussion and readings will cover what distinguishes top talent from mediocre talent and what makes an organization an employer of choice. Leadership, conflict management, negotiations along with other important management differentiators will also be covered. Prerequisite(s): admission to the Bachelor of Applied Science in Managing Businesses and Organizations major. (Variable)

BUSINESS 3060. Law, Society, and Business — 3 hrs.

Develop broader understanding of the role organizations play in society -- locally, nationally, and globally. Ethics, law, technology, and ecology are some of the elements that combine to make this a crucial and constantly changing challenge for organizations. Prerequisite(s): admission to the Bachelor of Applied Science in Managing Businesses and Organizations major. (Variable)

BUSINESS 3065. Entrepreneurship and Opportunity — 3 hrs.

How to implement lean start-up methodology. Emphasis on customer discovery and marketplace feedback to determine real pain points and unmet needs of customers before launch. Entrepreneurial best practices are covered in preparation for entrepreneurial or intrapreneurial endeavors. Prerequisite(s): admission to the Bachelor of Applied Science in Managing Businesses and Organizations major. (Variable)

BUSINESS 3070. Topics: Effective Business Practices — 3 hrs.

Selected topics in business and management. Examples could include leadership, negotiation, communication in a diverse workplace, global trade practices, etc. Prerequisite(s): admission to the Bachelor of Applied Science in Managing Businesses and Organizations major. (Variable)

BUSINESS 3154. Global Skills — 2-3 hrs.

Combines cultural immersion with practical techniques and a liberal arts education to develop the interpersonal competency necessary to work effectively with individuals from around the world. Prerequisite(s): junior standing. (Same as CAP 3154) (Summer)

BUSINESS 3155. Socio-Economic Reality of Central America — 2 hrs.

Focus on the impact of culture in the work environment and the social and economic environment of Central America to explore how culture might impact a country's economic status in the global economy. Prerequisite(s): junior standing. [Same as CAP 3155] (Fall and Spring)

BUSINESS 3169. International Experience.

The successful completion of an approved study abroad experience, or a departmental internship or cooperative education experience that includes a significant international component. Pass/no credit. Prerequisite(s): consent of instructor. (Fall, Spring, Summer)

BUSINESS 4000. Advanced Professional Skills.

0 hrs. Experiential course where students focus on building leadership skills in addition to gaining mastery of those professional skills needed for success in the workplace. Coaching is provided to help students identify where and how these higher-level skills may be mastered. Pass/no credit only. Prerequisite(s): BUSINESS 2000; BUSINESS 3000 or consent of Wilson College of Business advisor; may be repeated in subsequent semesters; business majors only. (Fall and Spring)

Course Descriptions

BUSINESS 4040. Applied Business Finance — 3 hrs.

How to manage an organization's financial resources. Emphasis is on analyzing financial statements, time value of money, management of cash flow, risk and return, and valuation. Prerequisite(s): ECON 1031 (or ECON 1041 and ECON 1051); BUSINESS 3025; BUSINESS 3030; admission to the Bachelor of Applied Science in Managing Businesses and Organizations major. (Variable)

BUSINESS 4045. Practical Marketing for Organizations — 3 hrs.

How to make sure the world knows what you want them to know about your organization. Economic, business, and social environments are considered in developing a marketing plan for product, place, price, promotion, and customer service. Prerequisite(s): ECON 1031 (or ECON 1041 and ECON 1051); BUSINESS 3025; BUSINESS 3030; admission to the Bachelor of Applied Science in Managing Businesses and Organizations major. (Variable)

BUSINESS 6280. Topics in Business — 1-3 hrs.

Selected topics in business. May be repeated. Anticipated typical credit of 1 hour. Prerequisite(s): consent of MBA Director. (Variable)

CAP: Capstone

The following courses satisfy the Liberal Arts Core Category 6 Capstone Experience. The most current list of approved Liberal Arts Core Capstone courses is designated in each semester Schedule of Classes and also on the Liberal Arts Core Web site <https://undergradtestudies.uni.edu/liberal-arts-core/requirements>.

Courses

CAP 3102. Living in Our Techno-Social World — 3 hrs.

Exploration of the complex relationships between technology and society. Students discover how social systems affect the nature and use of technology and how the nature and use of technology affect social systems. Prerequisite(s): junior standing. (Same as TECH 3102) (Spring)

CAP 3103. Multidisciplinary Perspectives on Genocide: Case Studies — 3 hrs.

Introduces students to current perspectives on the Holocaust and other genocides from a variety of disciplines; examines the past and current significance of genocide to these disciplines and to the international community. Prerequisite(s): junior standing. (Fall and Spring)

CAP 3105. Sacred Space — 3 hrs.

This course asks why certain space is considered sacred and what the effect of that sacred space is on the profane space around it. Takes an interdisciplinary approach, drawing on such fields as anthropology, art, architecture, history, and religion. Prerequisite(s): junior standing. (Variable)

CAP 3106. Theatre in Education — 3 hrs.

Application of theatre performance and improvisation techniques to the teaching of a specific curricular topic intended for young audiences. Prerequisite(s): junior standing. (Variable)

CAP 3121. Creativity and the Evolution of Culture — 3 hrs.

Explores creativity from a Systems Perspective - as achievement resulting from a confluence of the Individual, the Domain, and the Field. Investigates creativity's role in the advance of culture; provides student opportunities to enhance personal creativity. Prerequisite(s): junior standing. (Variable)

CAP 3123. Greece: From the "Cradle of Democracy" to Today — 3 hrs.

A three-week, summer study-abroad and experiential learning course in Greece that allows students to experience Greece and its diverse cultural heritages from the perspectives of geography, history, religion, material culture (i.e., visits to archaeological sites, museums, monuments, churches, etc.) and contemporary Greeks. Prerequisite(s): junior standing. (Variable)

CAP 3124. Democracies — 3 hrs.

Addresses the varieties of democracy in theory and practice. Examines the threats to and opportunities for democracy posed by globalization. Studies relationships between democracy and various economic systems and geographical issues. Prerequisite(s): junior standing. (Variable)

CAP 3125. Globalization, Cultural Pluralism and International Security — 3 hrs.

Addresses the impact of globalization and cultural pluralism on the quality of human life and international security. Special emphasis given to environmental, ethnic, and international migration issues. Prerequisite(s): junior standing. (Variable)

CAP 3128. Ethics in Communication — 3 hrs.

Exploration of ethical dimensions and dilemmas in communication. [Same as COMM 3236] (Fall and Spring)

CAP 3129. Being National — 3 hrs.

Nearly all people in the world today are "national". But what really is national identity? Has it always existed? Where does it come from? This course examines the evolution of modern nations since the eighteenth century; the character of "being national" today in America, Europe, and other areas of the world; the powerful role that religion continues to play in national identity formation; the implications of globalization for national identity; how immigrants experience national identity; and, finally, the constructed and contingent nature of nations and national identity. Prerequisite(s): junior standing. (Variable)

CAP 3130. Science and Pseudoscience: Critiquing the World Around You — 3 hrs.

Daily, we are bombarded with interesting and novel breakthroughs and findings, for which these claims may or may not be true. This course builds off student knowledge to apply critical thinking and scientific analysis to controversial topics from various disciplines in the world around us. Prerequisite(s): junior standing. (Fall and Spring)

CAP 3131. Analysis of Social Issues — 3 hrs.

Critical thinking skills applied to rhetoric about issues confronting society. How to use philosophy, logic, social science and natural science to critique arguments and engage in meaningful discourse. Prerequisite(s): junior standing. (Fall and Spring)

CAP 3134. Back in the Valley: Martin Luther King, Jr. and the 21st Century — 3 hrs.

Using the social thought and action of Martin Luther King, Jr., as an analytical backdrop, students explore the socioeconomic and political context in the United States today. Students will be required to examine their own moral development, social thinking, faith perspectives, and decision-making processes. Uses an interdisciplinary and comprehensive approach. Students are required to investigate what community resources are available for the disadvantaged. Prerequisite(s): junior standing. (Variable)

CAP 3140. Environment, Technology, and Society — 2 hrs.

Emphasis on relationships and interactions of physical, biological, technological, and cultural components of environment. Study

of selected interdisciplinary problems. Elaborates on student's previous university experience and develops environmental literacy. Prerequisite(s): completion of both Liberal Arts Core Life Sciences and Physical Sciences requirements; junior standing. (Fall, Spring, Summer)

CAP 3144. Genocide in Writing and Film — 3 hrs.

Exploration of the complex interaction among occurrences of genocide, memory of them (individual, collective, and cultural), and print and cinematic representations of these historical events. Emphasis on how writing and film have shaped audience awareness and understanding of different genocides as well as individual, collective, and cultural responses to them. Prerequisite(s): junior standing. (Same as ENGLISH 3144) (Variable)

CAP 3148. The Holocaust in Literature and Film — 3 hrs.

Examination of responses to the Holocaust in literary texts and visual narratives. Includes issues of survivor testimony and representation, the possibilities and limitations of language and cinematic images, the role of memory, and questions of ethics and trauma. [Same as ENGLISH 3148] (Variable)

CAP 3151. Money, Sex and Power: Theories of Race, Class and Gender — 3 hrs.

Examination of social and ethical aspects of oppression and privilege in personal and political life. Study of concepts and meaning of categories such as race, ethnicity, class, gender and sexuality, and evaluation of strategies of resistance and/or accommodation. Prerequisite(s): junior standing. (Variable)

CAP 3152. Complementary, Alternative, and Integrative Health — 3 hrs.

Introduction to the concepts, theoretical basis, evidence-based analysis, and challenges and issues in integrative health and complementary and alternative medical practices (CAM). Integrative, alternative, and complementary medicine covers a broad range of healing philosophies, approaches, and therapies involving the use of holistic or culturally-specific health services and practices in the treatment of illness and disease and embraces an expanded concept of health and illness. Prerequisite(s): junior standing. (Same as PH 3650) (Variable)

CAP 3154. Global Skills — 2-3 hrs.

Combines cultural immersion with practical techniques and a liberal arts education to develop the interpersonal competency necessary to work effectively with individuals from around the world. Prerequisite(s): junior standing. (Same as BUSINESS 3154) (Summer)

CAP 3155. Socio-Economic Reality of Central America — 2 hrs.

Focus on the impact of culture in the work environment and the social and economic environment of Central America to explore how culture might impact a country's economic status in the global economy. Prerequisite(s): junior standing. (Same as BUSINESS 3155) (Fall and Spring)

CAP 3157. Monsters, Vampires, and Religion: An Awesome Alliance — 3 hrs.

As they read *Religion and its Monsters* by Timothy Beal and *Frankenstein* by Mary Shelley, students enhance their knowledge of the role monsters play in religion and develop proficiency in recognizing and analyzing religious undercurrents in our contemporary fascination with monsters. Students draw on skills/interests from their majors to complete a project about monsters in a contemporary novel. Prerequisite(s): junior standing. (Summer)

CAP 3158. The Water Planet — 3 hrs.

Investigates the interconnected role water, as a natural resource, plays at the junction between the social and physical environments of Earth. Topics include issues of water resources related to scientific, engineering, political, cultural, economic, and legal matters. Prerequisite(s): junior standing. (Fall, Spring, Summer)

CAP 3160. Community and Public Health — 3 hrs.

Examination of the major public health issues facing the U.S. and world population. Investigation of major public health initiatives, public policy, and ethical issues related to public health. Prerequisite(s): junior standing. (Same as PH 3160) (Variable)

CAP 3162. Ireland: Literature, Culture, History — 3 hrs.

Applying various perspectives from the arts, humanities, and social sciences to selected topics and issues in Irish literature, culture, and history; includes visits to notable related sites in Ireland. Generally offered as a Summer Study Abroad course. [Same as ENGLISH 3162] (Even Summers)

CAP 3165. Intercultural Perspectives — 3 hrs.

An interdisciplinary approach for understanding intercultural perspectives and developing effective intercultural skills for meeting the challenges of today's interconnectedness of societies and cultures both locally and globally. (Same as GER 3334 and TESOL 3565) (Fall and Spring)

CAP 3173. Bio-Medical Ethics — 3 hrs.

Application of principles and analytic methods of ethical theory to contemporary issues in medical practice and research. Topics include fundamental concepts of health and disease, life and death; rights and obligations of medical practitioners and their patients; informed consent and confidentiality; abortion and euthanasia; reproductive and transplantation technologies; and health policy and the provision and rationing of health care. (Same as RELS 3510 and PHIL 3510) (Fall and Spring)

CAP 3187. Blues and Jazz in African American Film and Literature — 3 hrs.

African American experiences in Spirituals, Blues, Gospel, Ragtime, Jazz, and Rap/Hip-Hop applied to study of narrative strategies, themes, and ideologies of resistance and survival in African American films and literature. (Same as ENGLISH 3577) (Variable)

CAP 3190. Idea of the University — 3 hrs.

An examination of the role of the university in American society with a focus on: (1) what it has been, (2) how it has evolved, and (3) what its key purposes are and should be. Topics may include a brief historical overview, an examination of current models of institutions of higher education, discussion and evaluation of key problems facing higher education, and an exploration of future trends and proposed "innovations" in higher education. Prerequisite(s): junior standing. (Variable)

CAP 3194. Perspectives on Death and Dying — 3 hrs.

Multidisciplinary study of death, dying, and bereavement across cultures, religious and ethnic groups, and historical periods, with attention to ritual and memoir, ethical dilemmas at the end of life, and psychology of mourning. (Same as RELS 3110 and PHIL 3110) (Fall and Spring)

CHEM: Chemistry and Biochemistry

Courses

CHEM 1010. Principles of Chemistry — 4 hrs.

Basic concepts of chemistry, the periodic table and its relation to atomic structure and chemical properties. How the understanding of changes in matter and energy is important in both living and non-living systems. Work of the chemist and the interactions of chemistry with other activities of humankind. Discussion, 3 periods; lab, 2 periods. No credit for student with credit in any college chemistry course. (Fall and Spring)

CHEM 1011. Molecules and Life — 3 hrs.

Basic concepts of chemistry, with an emphasis on the structure and function of molecules in living systems. Discussion, 3 periods. No credit for student with credit in any college chemistry course. (Fall and Spring)

CHEM 1012. Matter Matters — 3 hrs.

All the matter around us is made of atoms, and we are constantly making choices about how we use and interact with the chemical aspects of our world. Many ethical questions accompany these choices. This course explores how the scientific method advances knowledge, informs individual and societal decisions, and enables students to understand the importance of chemistry in their everyday lives. (Fall)

CHEM 1020. Chemical Technology — 4 hrs.

Basic concepts of inorganic and organic chemistry and their applications to industrial processes. Emphasis on application of chemical principles in materials, energy production and use, and environmental problems. Discussion, 3 periods; lab, 3 periods. No credit for student with credit in any college chemistry course. (Fall and Spring)

CHEM 1110. General Chemistry I — 4 hrs.

Structure of matter, its physical properties and laws describing them, the periodic table and its relation to atomic structure and chemical properties, and non-metallic elements and their compounds. Students with extensive background in high school chemistry and mathematics may enter CHEM 1130 following departmental advisement. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): satisfactory ALEKS score or equivalent. (Fall, Spring, Summer)

CHEM 1120. General Chemistry II — 4 hrs.

Continuation of CHEM 1110 with emphasis on intermolecular forces, solutions, kinetics, chemical and ionic equilibrium, and thermodynamics. Discussion, 3 periods; lab, 3 periods. For pre-professional students and science majors with a special interest in chemistry. Prerequisite(s): CHEM 1110 or equivalent. (Fall, Spring, Summer)

CHEM 1130. General Chemistry I-II — 5 hrs.

Accelerated course for well-prepared students. Content similar to CHEM 1110 and CHEM 1120 but covered in one semester. Completion satisfies General Chemistry requirement of any chemistry major. Discussion, 4 periods; lab, 3 periods. Prerequisite(s): consent of department head. (Fall)

CHEM 1610. Careers In Chemistry — 1 hr.

Exploration of career opportunities in chemistry-related fields and preparing for life after graduation. Presentations describing careers and current areas of research in chemistry; drafting resume/CV; finding and applying for jobs, internships, and undergraduate research

opportunities. Offered on credit/no credit basis only. No credit toward Chemistry Minor. Discussion, 1 period. Prerequisite(s): CHEM 1120 or CHEM 1130. (Variable)

CHEM 2010. Chemical Safety Seminar — 1 hr.

Overview of laboratory and chemical safety principles, including regulatory considerations. May not be used for credit toward a chemistry minor. Prerequisite(s): CHEM 2040 or CHEM 2210 or equivalent. (Spring)

CHEM 2040. Applied Organic and Biochemistry — 4 hrs.

Basic concepts in organic chemistry and biochemistry, including nomenclature, functional groups, reactivity, and macromolecules. No credit for students with credit in CHEM 2220. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): CHEM 1010 or CHEM 1120 or CHEM 1130. (Fall and Spring)

CHEM 2110. Descriptive Inorganic Chemistry — 4 hrs.

Properties, structures, reactions, and applications of elements and their most important compounds. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): CHEM 1120 or CHEM 1130. (Fall and Spring)

CHEM 2210. Organic Chemistry I — 3 hrs.

Fundamentals of organic chemistry. For majors in the sciences and those preparing for medically-related careers. Discussion, 3 periods. Prerequisite(s): CHEM 1120 or CHEM 1130. (Fall, Spring, Summer)

CHEM 2220. Organic Chemistry II — 3 hrs.

Continuation of CHEM 2210. Discussion, 3 periods. Prerequisite(s): CHEM 2210. (Fall, Spring, Summer)

CHEM 2230. Organic Chemistry Laboratory — 2 hrs.

Purification and identification techniques and some representative organic reactions. Lab, 6 periods. Prerequisite(s) or corequisite(s): CHEM 2210. (Fall and Spring)

CHEM 2320. Chemical Analysis — 3 hrs.

A survey of modern analytical techniques and quantitative methodology, including spectroscopic analysis, mass spectrometry, chromatographic separations, electrochemical techniques, sample introduction, and data analysis. Discussion, 3 periods. Prerequisite(s): CHEM 1120 or CHEM 1130. (Fall and Spring)

CHEM 2330. Chemical Analysis Laboratory — 2 hrs.

Techniques and calculations of modern quantitative analysis, with a principal focus on precision in laboratory measurements and statistical treatment of data. Includes analysis of unknown mixtures and practical applications of modern analysis. Lab, 6 periods. Prerequisite(s) or corequisite(s): CHEM 2320. (Fall and Spring)

CHEM 3305/5305. Environmental Chemistry — 3 hrs.

An introduction to chemical processes that are important in the environment: sources, transport, reactions, reaction kinetics, chemical equilibria, and geochemical cycling of chemical species in the air, water, and soil environments. Includes consideration of the effect of human activities on the chemistry of the atmosphere, hydrosphere, and lithosphere. Discussion, 3 periods. Prerequisite(s): CHEM 1120 or CHEM 1130; junior standing. (Variable)

CHEM 3600. Undergraduate Research in Chemistry — 1-3 hrs.

May be repeated. Prerequisite(s): Credit applied to the B.S. Biochemistry or B.S. Chemistry major requires the following prerequisites: CHEM 2110 or CHEM 2230 or CHEM 2330 or consent of department head. (Fall, Spring, Summer)

CHEM 4110/5110. Inorganic Chemistry — 3 hrs.

Applications of principles of physical chemistry to inorganic systems, with emphasis on chemistry of transition elements.

Discussion, 3 periods. Prerequisite(s): CHEM 2110; CHEM 2210; CHEM 4420/5420; junior standing. (Odd Springs)

CHEM 4150/5150. Advanced Inorganic Chemistry — 3 hrs.

Coordination chemistry, organometallics, materials chemistry, or other advanced topics in inorganic chemistry. May be repeated on different topics with consent of instructor. Discussion, 3 periods. Prerequisite(s): CHEM 4110/5110 or consent of instructor; junior standing. (Variable)

CHEM 4200/5200. Nanoscience — 3 hrs.

Study of nanoscale materials and processes, with emphasis on the preparation and characterization of materials with nanometer scale dimensions; investigation of how nanoscale dimensions produce unique chemical and physical properties; nanoscale microscopy and spectroscopic methods of investigation. Prerequisite(s): CHEM 1110 and CHEM 1120 (or CHEM 1130); PHYSICS 1511 or PHYSICS 1701; PHYSICS 1512 or PHYSICS 1702; junior standing. [Same as PHYSICS 4200/5200] (Odd Falls)

CHEM 4210/5210. Nanotechnology — 3 hrs.

Study of nanoscale materials and processes, with emphasis on the current and potential future applications of materials with distinctive properties due to their nanometer scale dimensions; nanoporous materials; discussion of the broader implications of nanotechnology in areas such as government policy, occupational safety and medical technology. Prerequisite(s): CHEM 1110 and CHEM 1120 (or CHEM 1130); PHYSICS 1511 or PHYSICS 1701; PHYSICS 1512 or PHYSICS 1702; junior standing. [Same as PHYSICS 4210/5210] (Even Falls)

CHEM 4220/5220. Organic Structure Analysis — 3 hrs.

Use of infrared and ultraviolet-visible spectroscopy, proton and carbon magnetic resonance, mass spectrometry, and other physical and chemical methods for assignment of structure to organic compounds. Discussion, 3 periods. Prerequisite(s): CHEM 2230; CHEM 2320; junior standing. (Even Springs)

CHEM 4250/5250. Advanced Organic Chemistry — 3 hrs.

Product analysis, kinetics, and mechanism of organic reactions. May be repeated on different topics with consent of instructor. Discussion, 3 periods. Prerequisite(s): CHEM 2220; CHEM 4430/5430; or consent of instructor; junior standing. (Variable)

CHEM 4310/5310. Instrumental Analysis — 3 hrs.

Application of physical chemical principles to chemical analysis with an emphasis on the practice of instrumental methods of analysis such as spectrophotometric, electroanalytical, chromatographic, and computerized techniques. Discussion, 1 period; lab, 5 periods. Prerequisite(s): CHEM 2210; CHEM 2320; CHEM 2330; junior standing. Prerequisite(s) or corequisite(s): CHEM 4420/5420. (Fall)

CHEM 4350/5350. Advanced Analytical Chemistry — 3-4 hrs.

Chromatography, spectroscopy, electrochemistry, or other advanced topics in analytical chemistry. May be repeated on different topics with consent of instructor. Discussion, 3 periods; if offered for 4 hours, lab 3 additional periods. Prerequisite(s): CHEM 4310/5310; CHEM 4420/5420; CHEM 4430/5430; or consent of instructor; junior standing. (Variable)

CHEM 4420/5420. Physical Chemistry I — 3 hrs.

Application of quantum mechanics, thermodynamics, and kinetics to chemical behavior on the microscopic and macroscopic scales. Discussion of the harmonic oscillator, atoms and molecules, spectroscopy, energy changes during reactions, chemical equilibrium and reaction mechanisms. Discussion, 3 periods. Prerequisite(s):

CHEM 1120 or CHEM 1130; MATH 1420; PHYSICS 1512 or PHYSICS 1702; junior standing. (Fall)

CHEM 4430/5430. Physical Chemistry II — 3 hrs.

Continued applications of quantum mechanics, thermodynamics, and kinetics to chemical behavior. Relationships between thermodynamic energies, properties of mixtures, angular momentum, multielectron systems, the Boltzmann distribution, and the kinetic theory of gases. Discussion, 3 periods. Prerequisite(s): CHEM 4420/5420, MATH 1421; junior standing. (Spring)

CHEM 4440/5440. Physical Chemistry Laboratory — 2 hrs.

Physical measurement techniques in chemistry. Lab, 6 periods. Prerequisite(s): CHEM 2320; CHEM 2330; CHEM 4420/5420; junior standing. Prerequisite(s) or corequisite(s): CHEM 4430/5430. (Spring)

CHEM 4450/5450. Advanced Physical Chemistry — 3 hrs.

Molecular structure, chemical kinetics, quantum mechanics, or other advanced topics in physical chemistry. May be repeated on different topics with consent of instructor. Discussion, 3 periods. Prerequisite(s): CHEM 4420/5420; CHEM 4430/5430; or consent of instructor; junior standing. (Variable)

CHEM 4505/5505. Drugs, Poisons, and Venoms — 3 hrs.

Biology, chemistry, and biochemistry of drugs, poisons, and venoms, with consideration of associated criminal and societal issues. Discussion, 3 periods. Prerequisite(s): CHEM 2040 or CHEM 2220; junior standing. (Fall and Spring)

CHEM 4510/5510. Biochemistry I — 3 hrs.

Structure and function of biologically important molecules including amino acids, proteins, carbohydrates, lipids, and nucleic acids, and enzyme kinetics. Lecture, 3 periods. Prerequisite(s): CHEM 2220; junior standing. (Fall and Spring)

CHEM 4520/5520. Biochemistry II — 3 hrs.

Continuation of CHEM 4510/5510/5510. Bioenergetics; intermediary metabolism of carbohydrates, lipids, and amino acids; macromolecular biosynthesis; and current topics in biochemistry. Lecture, 3 periods. Prerequisite(s): CHEM 4510/5510; junior standing. (Spring)

CHEM 4530/5530. Biochemistry Laboratory — 2 hrs.

Introduction to biochemical methodology. Chromatographic and electrophoretic purifications of proteins, lipids, and nucleic acids; chemical characterizations of amino acids, peptides, carbohydrates, and fatty acids; study of enzyme kinetics. Lab, 6 periods. Prerequisite(s): CHEM 4510/5510; junior standing. Prerequisite(s) or corequisite(s): CHEM 4520/5520. (Fall and Spring)

CHEM 4550/5550. Advanced Biochemistry — 3 hrs.

Amino acid and nucleotide biosynthesis and degradation, signal transduction, or other advanced topics in biochemistry. May be repeated on different topics with consent of instructor. Discussion, 3 periods. Prerequisite(s): CHEM 4510/5510; CHEM 4520/5520; junior standing. (Variable)

CHEM 4605/5605. Introduction to Polymer Science — 3 hrs.

This course is designed as an upper-level undergraduate and introductory graduate-level elective to teach the fundamentals of polymer science. The course is intended to introduce students to some of the major concepts of polymer science: a history of macromolecules; structure and bonding in polymers; types of polymerizations; natural and biological polymers; and sustainability and recycling. Prerequisite(s): CHEM 1120 or CHEM 1130; junior standing. (Odd Summers)

Course Descriptions

CHEM 4610/5610. Advanced Synthesis Laboratory — 2 hrs.

Advanced techniques in synthesis, purification, and characterization of organic and inorganic compounds. Lab, 6 periods. Prerequisite(s): CHEM 2110; CHEM 2230; junior standing. Prerequisite(s) or corequisite(s): CHEM 2220. (Fall)

CHEM 4620/5620. Special Problems in Chemistry — 1-6 hrs.

Credit determined at registration. Problems selected according to needs of students. May be repeated for credit. Prerequisite(s): consent of department head; junior standing. (Variable)

CHEM 4630/5630. Research Methods and Chemical Literature — 1-3 hrs.

Concepts and procedures for developing a chemical research problem; use and importance of chemical literature. Prerequisite(s): junior standing. (Fall and Spring)

CHEM 6289. Seminar — 1 hr.

Current topics in chemistry. May be repeated.

CHEM 6299. Research.

Prerequisite(s): consent of department head. (Fall, Spring, Summer)

CHEM 629R. Directed Research.

(Fall and Spring)

CHIN: Chinese

Courses

CHIN 1001. Elementary Chinese I — 4-5 hrs.

For beginners. (Variable)

CHIN 1002. Elementary Chinese II — 4-5 hrs.

Continuation of CHIN 1001. Prerequisite(s): CHIN 1001 or consent of instructor. (Variable)

CHIN 1011. Intermediate Chinese I — 4-5 hrs.

Continuation of CHIN 1002. Progressive development of writing, reading, and speaking skills through sequence of exercises relating to daily practical living. Grammatical refinement using numerous illustrations of more difficult new words in dialogues on everyday topics. Prerequisite(s): CHIN 1002 or consent of instructor. (Variable)

CHIN 1050. Introduction to Chinese Literature — 3 hrs.

This survey course of Chinese Literature introduces major works of Chinese literature over history. (Fall)

CHIN 1060. Introduction to Chinese Culture: (Topic) — 3 hrs.

Introduction to selected Chinese cultural topics such as language, film, and art. May be repeated for credit under different topics. (Fall and Spring)

CI: Curriculum & Instruction

Courses

CI 6118. Exploring Transformative Education — 3 hrs.

Transformational educators create experiences, melding the art and science of any subject and facilitating their students' learning. The key to transformational teaching is not reacting but rather a passionate obsession with analysis and preparation. This course is the first of four courses focusing on transformational education and educators. It introduces experienced educators to an overview of some theories associated with educational practices that transform learning, culturally sustain and foster equity-based classrooms, and how schools engage in research that transforms personal practice, explores transformative leadership in a school context, and applies ethical frameworks and legal principles related to educational initiatives.

Prerequisite(s): admission to the Transformative Education MAE program. (Fall, Spring, Summer)

CI 6119. Engaging Transformative Education — 3 hrs.

Transformational educators create learning experiences, melding the art and science of any subject that facilitates their students' connections and valuing of learning. The key to transformational teaching is not reacting but rather a passionate obsession with analysis and preparation. This course is the second of four courses focusing on transformational education and features engagement with transformational education. Students apply theoretical frameworks developed in the first course to analyze real school situations through this course. They will develop culturally sustaining and equity-oriented research questions worthy of study and further develop communication, decision-making, and problem-solving skills. Various leadership styles are considered in the context of transformational practice. Students will analyze educational policy, legal principles, and ethical implications of educational decisions. Prerequisite(s): CI 6118. (Fall, Spring, Summer)

CI 6120. Critiquing Transformative Education — 3 hrs.

This course is the fourth of four courses focusing on transformational education. Through this course, Critiquing Transformative Education, students will critically analyze key theories and models of transformational education and evaluate methodologies for classroom application and praxis. Students will interpret their research findings and communicate conclusions in a scholarly format. This course will analyze the challenges of inclusive transformational leadership and organizational challenges for implementing transformational practice and praxis. Students will evaluate equity and access policy through engagement with ethical dilemmas in transformational education. Prerequisite(s): CI 6119. (Fall, Spring, Summer)

CI 6121. Creating Transformative Education — 3 hrs.

This course is the third of four courses focusing on transformational education. Through this course, Critiquing Transformative Education, students critically analyze key theories and models of transformational education and evaluate methodologies for classroom application and praxis. Building on the previous critical research question(s), teams of students will gather data that answers or redirects questions to develop transformational education initiatives. This course will analyze the challenges of inclusive transformational leadership and organizational challenges for implementing transformational practice and praxis. Students will evaluate equity and access policy through engagement with ethical dilemmas in transformational education. Prerequisite(s): CI 6120. (Fall, Spring, Summer)

CI 6500. Adapting and Creating Curriculum with AI — 3 hrs.

In the rapidly evolving landscape of education, harnessing the power of Artificial Intelligence (AI) has become increasingly essential. This course explores how educators can leverage AI technologies to adapt existing curricula and create new educational experiences that are responsive to and effective in meeting the needs of all learners. Students will delve into AI applications in education, gaining insights into how AI can personalize learning experiences, optimize content delivery, and enhance educational outcomes. Through a blend of theoretical exploration and hands-on practical exercises, educators will learn strategies to integrate AI tools and techniques into their teaching practices and design, or re-design, curricula in light of these teaching practices. Students will learn how to use AI and other emerging technologies to help K12 students produce original and creative works and demonstrate disciplinary learning. (Spring)

CI 7352. Curriculum Theory and Development — 3 hrs.

Assists the advanced graduate student in viewing, analyzing, and interpreting the curriculum and instruction program of an educational institution and in developing skills for implementing change. (Variable)

CI 7354. Curriculum Implementation and Evaluation — 3 hrs.

Exploration of systems for program evaluation and revision and the dynamics of change processes. (Variable)

CI 7389. Seminar in Curriculum and Instruction — 3 hrs.

Intensive study and seminar presentations of current issues, trends, procedures, and obstacles to change in curriculum and instructional practice. May be repeated to a maximum of 12 hours. Prerequisite(s): doctoral status or consent of department. (Variable)

CI 7397. Practicum in Curriculum and Instruction — 2-4 hrs.

Supervised practice in working as a co-facilitator and/or as a facilitator in program evaluation and revision and/or instructional design and improvement in an educational setting. May be repeated for maximum of 4 hours. Prerequisite(s): CI 7352; and consent of instructor. (Fall, Spring, Summer)

CM CORE: Communication and Media Core

Courses

CM CORE 1001. Digital Toolbox — 3 hrs.

Learn basic concepts and skills needed for digital creation/production including image creation and editing, videography, photography, web design, basic coding for the web, and content management for a wide range of communication professions and settings. Students will develop a solid foundation in creative digital production skills. This will prepare students for future coursework, the modern workplace, and life as a digital citizen. (Fall and Spring)

CM CORE 1010. Mass Communication and Society — 3 hrs.

Survey of basic mass communication processes, including history and structure of media and media-related industries and sales, audiences, effects, careers, and future directions. (Fall and Spring)

CM CORE 2020. Communication Research Methods — 3 hrs.

Introduction to the process of research and inquiry across the discipline of communication studies. Includes the three units qualitative, quantitative, and rhetorical. Introduction to the normative expectations of the research process. (Fall and Spring)

CM CORE 3179. Cooperative Education — 1-6 hrs.

(Fall, Spring, Summer)

CM CORE 3255. Advocacy Campaigns — 3 hrs.

Principles, practices, and strategies used to create and implement advocacy campaigns, including electoral, health, marketing, media, public relations, political, and social change campaigns. (Fall and Spring)

CM CORE 3900/5900. Internship in Communication and Media — 1-6 hrs.

Students complete academic assignments in conjunction with intensive work in a specialized area at an organization. May be repeated for maximum of 6 hours. Prerequisite(s): junior standing; internship coordinator approval. See the internship coordinator for additional departmental requirements. (Fall, Spring, Summer)

CM CORE 4124. Communication and Media Theories — 3 hrs.

Investigation of theories and concepts used to explain human communication and media. (Fall and Spring)

COMM: Communication and Media

Courses

COMM 1000. Oral Communication — 3 hrs.

Development of speaking and listening skills by studying the process and theory of communication and by applying communication principles to various speaking situations. (Fall, Spring, Summer)

COMM 1940. Applied Forensics — 1 hr.

Credit for approved participation in competitive speech and debate activities. May be repeated for maximum of 4 hours. Prerequisite(s): consent of instructor. (Fall and Spring)

COMM 1941. Applied Performance Studies — 1-2 hrs.

Credit for approved participation in Performance Studies (e.g., participation in Interpreters Theatre, performance in community, campus, or festival settings; or related activity). May be repeated for maximum of 8 hours. Prerequisite(s): consent of instructor. (Fall and Spring)

COMM 2205. Group Communication — 3 hrs.

Study of how people use communication to cultivate effective groups. Exploring theories and processes related to groups, students will learn how to assess and improve teams while developing their own skills as a group communicator. (Fall and Spring)

COMM 2255. Public Speaking — 3 hrs.

Teaches students to prepare, adapt, present, and critique a variety of speeches in a public setting. (Fall and Spring)

COMM 2256. Performing Texts — 3 hrs.

Introduction to the performance, analysis, and criticism of literary and aesthetic texts. (Fall)

COMM 2257. Argumentation and Debate — 3 hrs.

Training in the basics of academic debate and policy analysis. (Fall)

COMM 2344. Interpersonal Communication — 3 hrs.

Study of communication in relationships; exploration and experience with concepts and processes involved in one-to-one communication. (Fall, Spring, Summer)

COMM 2455. Skills for Making Performance — 3 hrs.

Adapting and staging texts for live and electronic group performances. Work in narrative adaptation, montage scripting, and ethnodrama. Prerequisite(s): COMM 2256. (Variable)

COMM 2456. Communication and Popular Culture — 3 hrs.

Introduction to the critical analysis, study, and performance of popular culture artifacts, phenomenon and texts. Special emphasis given to the socio-political implications and technological advances affecting popular culture consumption in U.S. culture. (Variable)

COMM 3000/5000. Selected Topics in Communication — 3 hrs.

Intensive work in specialized communication concepts, processes and approaches. No single emphasis may be repeated although the course may be repeated for maximum of 6 hours. Prerequisite(s): junior standing. (Variable)

COMM 3001. Seminar in Communication: (Topic) — 3 hrs.

Topics will rotate with each seminar focusing on a specific area of faculty expertise tied to contemporary issues in communication

Course Descriptions

studies. The highly interactive seminar format offers a chance for exploration of challenging and interesting topics with close collaborative work between instructors and students. This course may be repeated for up to 6 credit hours. Prerequisite(s): junior standing. (Fall and Spring)

COMM 3055. Organizational Communication — 3 hrs.

Study of communication theories and practices in organizational settings. Students explore the role of communication in workplace processes such as newcomer socialization, conflict management, leadership and technology. (Fall and Spring)

COMM 3155. Professional and Public Communication — 3 hrs.

Exploration of theories and experiences in diverse business and professional situations, with an emphasis on developing individual, dyadic, team, public, and mediated communication skills. Students will develop in-person and digital presentation skills. (Fall and Spring)

COMM 3236. Ethics in Communication — 3 hrs.

Exploration of ethical dimensions and dilemmas in communication. [Same as CAP 3128] (Fall and Spring)

COMM 3455. Creativity, Storytelling and Identity — 3 hrs.

Methods of making, collecting, analyzing, and theorizing storytelling and identity. Applications for communication and media research and creative action, including projects in museums, public relations campaigns, organizational settings, and community media. (Fall and Spring)

COMM 3456. Practicing Public Advocacy — 3 hrs.

Covering a range of topics, this course explores practical examples of and problems relating to public advocacy. The focus is on how performance and rhetoric offer tools to practice public advocacy. Topics will rotate from year to year. (Variable)

COMM 3555. Interactive Digital Communication — 3 hrs.

Building on Digital Toolbox, this class offers students a more comprehensive understanding of web frameworks, content management systems, code (HTML, CSS, and beginning Javascript) and digital skill sets. Prerequisite(s): CM CORE 1001. (Fall and Spring)

COMM 3940. Advanced Applied Forensics — 1 hr.

Credit for approved advanced participation in competitive speech and debate activities. May be repeated for maximum of 4 hours. Prerequisite(s): consent of instructor. (Fall and Spring)

COMM 3941. Advanced Applied Performance Studies — 1-2 hrs.

Credit for approved advanced work in Performance Studies (e.g., participation in Interpreters Theatre, performance in community, campus, or festival settings; or related activity). May be repeated for maximum of 8 hours. Prerequisite(s): consent of instructor. (Fall and Spring)

COMM 4001/5001. Communicating with AI — 3 hrs.

This course introduces students to the fundamentals of interacting with artificial intelligence (AI) technologies, focusing on enhancing communication using various AI media in professional and civic contexts. Prerequisite(s): junior standing. (Variable)

COMM 4021/5021. Quantitative Research Methods — 3 hrs.

Examination of principles and procedures of communication research with emphasis on experimental and survey methods and techniques. Students will complete research projects. Prerequisite(s): CM CORE 2020 or equivalent; junior standing. (Fall)

COMM 4022/5022. Qualitative Research Methods — 3 hrs.

Examination of principles and procedures of communication research with emphasis on interpretive and ethnographic techniques. Students

complete research projects. Prerequisite(s): CM CORE 2020 or equivalent; junior standing. (Fall)

COMM 4023/5023. Rhetorical Research Methods — 3 hrs.

Examination of principles and procedures of communication research with emphasis on the critical analysis and interpretation of persuasive messages. Students complete research projects. Prerequisite(s): CM CORE 2020 or ENGLISH 2120 or equivalent; junior standing. (Spring)

COMM 4116/5116. Health Communication — 3 hrs.

Theories of communication in health care settings, current issues in health communication, types of applications in interpersonal, organizational, and public communication contexts; literature and performance methods in health education. Prerequisite(s): junior standing. (Odd Springs)

COMM 4120/5120. Inclusive Leadership in the Workplace — 3 hrs.

The purpose of this course is for students to cultivate inclusive leadership knowledges, skills, and dispositions. As such the course blends reading/discussion with hands-on application and case studies. Students will be expected to describe the key concepts of inclusive leadership and apply how those concepts can be used to address different issues/problems/context. Prerequisite(s): junior standing. (Variable)

COMM 4134/5134. Organizational Cultures and Communication — 3 hrs.

Study of how cultural ideologies and forms such as symbols, rituals, language, and narratives are created, maintained, and changed in organizations. Emphasis on interpretive and critical theory and research. Prerequisite(s): junior standing. (Fall)

COMM 4140/5140. AI, Work, and the Future — 3 hrs.

Introduces students to the basics of AI and encourages them to develop skills related to the short- and long-term implications of AI for employment, economic growth, privacy, and inequality. Prerequisite(s): junior standing. (Fall and Spring)

COMM 4155/5155. Organizational Communication Assessment — 3 hrs.

Investigation of communication behavior and effectiveness in organizations. Students act in groups to design and conduct a consulting intervention in an actual organization. Prerequisite(s): CM CORE 2020 or consent of instructor; COMM 3055; junior standing. (Spring)

COMM 4211/5211. Rhetoric and Civic Culture — 3 hrs.

Exploration of theories explaining how symbolic action creates, maintains, and transforms social reality, plays a role in social/political/cultural orders, differs between groups, and affects social change. Particular attention paid to the role of rhetoric in civic culture. Prerequisite(s): senior standing. (Spring)

COMM 4213/5213. Visual Rhetoric — 3 hrs.

Analysis of visual communication and how visual forms (e.g., bodies, photographs, memorials, image events) construct, maintain, and alter social reality. Prerequisite(s): CM CORE 1010 or CM CORE 2020 or CM CORE 1001 or COMM DM 1611 or ENGLISH 2120 or ART HIST 1004 or ART 1002. (Variable)

COMM 4216/5216. Political Communication — 3 hrs.

Study of the elements of national and/or local political communication, including the rhetoric of political campaigns, and/or the rhetoric of elected officials. Prerequisite(s): junior standing. [Same as POLSCI 4160/5160] (Even Falls)

COMM 4217/5217. Freedom of Speech — 3 hrs.

Development of laws and social attitudes that have attempted to regulate communication in the United States; relation of free speech to national security, to regulation of the public forum, and to artistic expression; analysis of doctrines and tests used by the Supreme Court in interpreting the limits to free expression. Prerequisite(s): junior standing. (Variable)

COMM 4218. Persuasion — 3 hrs.

Examination of the dynamics involved in the creation, reception, and exchange of effective persuasive messages, episodes, and campaigns with a primary focus on social science theory and research regarding processes of human influence. (Variable)

COMM 4311. Nonverbal Communication — 3 hrs.

Study of practices, theories, and concepts related to patterns of human expression apart from the spoken or written word. Prerequisite(s): junior standing. (Variable)

COMM 4320. Leadership Communication and Citizenship — 3 hrs.

Exploration of the types of communication people use to give direction to the groups that matter most to them such as a team, community, organization, or social or political movement. Prerequisite(s): senior standing. (Fall)

COMM 4322/5322. Advanced Interpersonal Communication — 3 hrs.

Advanced study of theories and research in interpersonal communication. Prerequisite(s): COMM 2344; junior standing. (Fall)

COMM 4333/5333. Communication and Conflict Management — 3 hrs.

Exploration of the processes involved in managing conflict in various communication contexts. Prerequisite(s): junior standing. (Spring)

COMM 4344/5344. Intercultural Communication — 3 hrs.

Critical analysis of the multiple ways culture, perception, and communication influence each other. Offers a blend of theory, research, and hands-on application. Prerequisite(s): junior standing. (Spring)

COMM 4346/5346. Gender Issues in Communication — 3 hrs.

Critical examination of how communication creates, maintains and challenges diverse gender identities and of how gendered communication in and about social institutions can be sources of liberation and subordination. Prerequisite(s): junior standing. (Fall)

COMM 4347/5347. Family Communication — 3 hrs.

Study of communication phenomena in the family setting. Examination of how communication influences the development, maintenance, and enhancement of family relationships. Prerequisite(s): COMM 2344; junior standing. (Fall)

COMM 4412/5412. Performing History — 3 hrs.

Theoretical and practical introduction to the critical analysis, study, and performance of history. Construction and representation of history using performance techniques and perspectives in innovative digital storytelling. Prerequisite(s): CM CORE 1001; junior standing. (Spring)

COMM 4444/5444. Communication, Community, and Change — 3 hrs.

Study of communication practices in the construction, enhancement, and maintenance of communities. Theoretical and experiential applications through civic engagement, case study analysis, and applied critique of specific communities. Includes community projects,

presentations, or simulations. Prerequisite(s): senior standing. (Fall and Spring)

COMM 4446/5446. Voices from the Margin: Performance, Rhetoric, and Social Change — 3 hrs.

Study of creation and theory of rhetorical and performance texts that enact protest, generate dialogue, promote civic action, and induce social, cultural, and institutional change. The course focuses on historically underrepresented and marginalized groups in the United States, activism for change outside of institutional structures, and the way race/ethnicity, sex/gender, sexuality, and/or class intersect. Prerequisite(s): junior standing. (Variable)

COMM 4448/5448. Cultural Performance — 3 hrs.

Advanced study of verbal art, texts, and aesthetic traditions in community, cultural, and political contexts. Emphasis on the roles narrative, ritual, and ceremony play in creating and contributing to cultural identity and social advocacy. Prerequisite(s): junior standing. (Fall)

COMM 4490/5490. Interpreters Theatre Production — 1-2 hrs.

Advanced study and practice in preparing scripts, directing group performance for public presentation, and designing and implementing technical elements of productions. Usually involves directing, scripting, designing, or researching for an Interpreters Theatre production. Prerequisite(s): COMM 2455; approved Performance Studies project application; junior standing; consent of instructor. (Fall and Spring)

COMM 4544/5544. Digital Culture and Communication — 3 hrs.

Investigation of the relationships between technology and communication and their impact on social behavior, thought, and culture. Prerequisite(s): junior standing. (Fall and Spring)

COMM 4558/5558. Interactive Digital Visualization: (Topic) — 3 hrs.

Intensive work in specialized digital visualization concepts and practices. Work with advanced digital tools, techniques, and applications. Develop independent and group critical analysis and creative problem solving to digital project work. No single topic may be repeated although the course may be repeated for maximum of 6 hours. Prerequisite(s): CM CORE 1001; junior standing. Prerequisite(s) or corequisite(s): COMM 3555. (Fall and Spring)

COMM 4559. Communication Education and Training — 3 hrs.

Teaching strategies for various levels of communication instruction; application of educational principles to the communication classroom and organizational training. This is a required course for Communication Theatre Education majors and it is strongly recommended to take this class preceding student teaching. Prerequisite(s): for Communication Theatre Education majors: 12 hours of COMM (48C) course work; EDPSYCH 2030; junior standing. For other majors: junior standing. (Fall)

COMM 4909/5909. Readings in Performance Studies — 1-3 hrs.

Extensive individual study of special topics in performance studies theory, history, or research. Prerequisite(s): COMM 2256; COMM 4448/5448; junior standing. (Variable)

COMM DM: Communication and Media: Digital Media

Courses

COMM DM 1611. Media and Power — 3 hrs.

Analysis and critique of the production and consumption of media messages to develop students as ethical and active digital citizens. (Fall and Spring)

COMM DM 1620. Fundamentals of Journalism — 3 hrs.

Emphasis on news gathering techniques for journalists, including examination of search strategies, sources, and news values, the technologies of news gathering and their application, and fact-checking and writing news stories. (Fall and Spring)

COMM DM 1630. Start a Podcast — 3 hrs.

This course will teach students how to start a podcast. Bringing together experts in different areas across the Department of Communication and Media, this course will provide students with training in a wide variety of skills necessary to create a high-quality podcast, including script-writing, interviewing, storytelling, vocal delivery, audio-editing, and publicizing. Students will also study podcasting genres so as to understand the expectations of audiences in particular sub-genres of podcasts (e.g. true-crime, comedy, drama, sports, politics, personal-development, etc.). While doing this, they will examine a handful of particularly prominent or highly-recognized podcasts to identify the principles and characteristics underlying particularly successful podcasts. (Spring)

COMM DM 1652. Writing for Digital Media — 3 hrs.

Introduction to concepts and techniques of creative script writing used for digital media content in multiple formats and platforms. Topics include writing for fiction, news, television, and advertising. (Fall and Spring)

COMM DM 2651. Digital Media Production II — 3 hrs.

Building on the concepts of CM CORE 1001 Digital Toolbox, further exploration of creative storytelling using digital video, audio, live studio, and web concepts and technologies for multiple formats and platforms. Special emphasis on aesthetic and technical skills in post-production, including motion graphics, image manipulation, video, and sound editing. Prerequisite(s): CM CORE 1001 and COMM DM 1652. (Fall and Spring)

COMM DM 2652. Emerging Digital Media: (Topic) — 3 hrs.

Explores the aesthetic concepts and creation of interactive media content for multiple platforms. Topics include web technologies, interactive storytelling, and emerging media content. Topics indicated in Schedule of Classes. May be repeated for a maximum of 6 hours if different topic. Prerequisite(s): CM CORE 1001 or consent of instructor. (Variable)

COMM DM 2653. News Writing and Reporting — 3 hrs.

Participation on the staff of the university newspaper. Write articles and take photographs for the university's print and digital editions. Gather and edit audio and video, create multimedia packages for the newspaper's website. Prerequisite(s): COMM DM 1620 or approval of instructor. The COMM DM 1620 prerequisite is waived for Interactive Digital Studies majors and minors. (Fall and Spring)

COMM DM 2654. Scriptwriting for Digital Media — 3 hrs.

Exploration of a range of scriptwriting forms for digital media programs, including short and long-form narrative and documentary.

Distinctive genres within the broad fiction and non-fiction categories will be emphasized. Prerequisite(s): COMM DM 1652. (Variable)

COMM DM 2950. Applied Digital Media — 1 hr.

Practical project experience for qualified students who work for KULT Radio, Hilltop Media, the Northern Iowan, the Valley on ESPN, the Digital Collective, or on other authorized journalism, radio, video, or multimedia projects. May be repeated for maximum of 4 hours of applied digital media credit. Students may only use the organization's resources for projects. Prerequisite(s): consent of instructor. (Fall, Spring, Summer)

COMM DM 3651. Advanced Digital Media Production: Television News — 3 hrs.

Production of multi-camera content in a studio context, including news, sports, or talk shows. The course explores concepts and aesthetics, production workflow, application of journalistic methods, and delivery of content over multiple platforms. Students produce programs for broadcast. Prerequisite(s): CM CORE 1001; COMM DM 2651. (Variable)

COMM DM 3652. Advanced Digital Media Production: Documentary — 3 hrs.

Creates innovative documentary stories from idea development to post-production. Students explore theories of documentary realism, current and emerging documentary forms, and the ethics of documentary practice. Students produce a short documentary as a final project. Prerequisite(s): CM CORE 1001; COMM DM 2651. (Variable)

COMM DM 3653. Advanced Digital Media Production: Fiction — 3 hrs.

Development of fictional stories, including script development, production planning, directing actors, and the aesthetics of camera, lighting, sound, and editing as creative tools. Current and emerging forms of fiction programming for multiple platforms are explored. Students produce a short fiction video as a final project. Prerequisite(s): CM CORE 1001; COMM DM 2651. (Variable)

COMM DM 3654. Advanced Digital Media Production: Video Editing — 3 hrs.

Advanced training in digital post-production, including editing techniques, color correction, titles, and sound design. Through screenings and projects, students explore the history and aesthetics of editing, styles for different formats, and delivering content to multiple platforms. Prerequisite(s): CM CORE 1001; COMM DM 2651. (Variable)

COMM DM 3655. Advanced Digital Media Production: Audio — 3 hrs.

Advanced training in the theory and practice of audio recording and editing for multiple formats, including field and studio content. Prerequisite(s): CM CORE 1001; COMM DM 2651. (Variable)

COMM DM 3656. Digital Media Industries — 3 hrs.

Examines media development, production, and distribution in response to technological changes, audience expectations, new competition and other industrial forces. Prerequisite(s): CM CORE 1010 or consent of instructor. (Fall)

COMM DM 3658. Digital Journalism: (Topic) — 3 hrs.

Writing and developing online journalism, including web pages, social media, interactive timelines, motion graphics, video, virtual reality storytelling, and podcasts. May be repeated for up to 6 hours if different topic. Prerequisite(s): CM CORE 1001; COMM DM 1652 or COMM DM 2653. (Variable)

COMM DM 3659. Editing and Design — 3 hrs.

Immersion in layout, design and photography for news or feature publication. Students use digital tools, including InDesign, Photoshop and Illustrator to create finished pieces for publication, including editorial and advertorial content. Prerequisite(s): COMM DM 2653 or consent of instructor. For Interactive Digital Studies majors and minors: no prerequisites. (Fall and Spring)

COMM DM 3660. Sports Journalism — 3 hrs.

Writing and producing sports journalism content, and play-by-play reporting, for television, radio, mobile, and other digital media platforms. Prerequisite(s): CM CORE 1001. (Fall)

COMM DM 4621/5621. Digital Media Analysis — 3 hrs.

Critically examines multiple theoretical and methodological approaches to the analysis and criticism of digital media content, including fiction, documentary, video games, transmedia, web, and other formats. Prerequisite(s): junior standing. (Fall)

COMM DM 4630/5630. Digital Media Law and Ethics — 3 hrs.

The course explores contemporary issues in media law and ethics that impact digital media industries and public relations. Critical analysis of issues such as freedom of speech and the First Amendment; the news media and courts; censorship and libel; media ownership and monopolies; copyright laws and fair use; and regulation of the internet. Prerequisite(s): junior standing. (Fall and Spring)

COMM DM 4632. Senior Seminar in Digital Media — 3 hrs.

Preparation for a professional career in digital media, including development of interview skills, resumes, portfolios, and cover letters. Exploration of ethical foundations for production, distribution, and consumption of digital media. Prerequisite(s): CM CORE 1001; senior standing. (Fall and Spring)

COMM DM 4640. Advanced Podcasting — 3 hrs.

Building on foundational podcasting skills, this course will dive deeper into the strategies and tools necessary for producing, promoting, and growing a professional podcast. Students will explore the evolving landscape of both audio and video podcasting, gaining hands-on experience in advanced techniques that elevate content and expand reach. Prerequisite(s): COMM DM 1630 or consent of instructor. (Variable)

COMM DM 4641/5641. Critical Studies in Digital Media: (Topic) — 3 hrs.

Advanced examination of history, theory, and aesthetic forms of digital media content and creators. Topics indicated in Schedule of Classes. May be repeated for maximum of 6 hours if different topic. Prerequisite(s): junior standing. (Variable)

COMM DM 4642/5642. Digital Technologies: (Topic) — 3 hrs.

Examination of theories and practices of past, current, and developing technologies used for multiple platforms of digital media content. Topics may include script development, software applications, web technologies, virtual reality, games, digital cultures, and mobile media. May be repeated for maximum of 6 hours if different topic. Prerequisite(s): CM CORE 1010; junior standing or consent of instructor. (Variable)

COMM DM 4644/5644. Global Media: (Topic) — 3 hrs.

Focus on how technology, history, politics, economics, and culture have shaped the development of media systems in the world. Prerequisite(s): CM CORE 1010; junior standing. (Variable)

COMM DM 4650. Advanced News Writing and Reporting — 3 hrs.

Participation on the staff of the university newspaper. Writing advanced articles and taking photographs for the university's print and digital editions. Gathering and editing audio and video, creating multimedia packages for the newspaper's web site. Students will also do editing for the newspaper. Prerequisite(s): COMM DM 2653; junior standing. (Fall and Spring)

COMM DM 4651. Digital Media Practicum: (Topic) — 3 hrs.

Advanced media production for multiple platforms of digital media. Topics indicated in Schedule of Classes. May be repeated for maximum of 6 hours if different topic. Prerequisite(s): COMM DM 3651, or COMM DM 3652, or COMM DM 3653, or COMM DM 3654, or COMM DM 3655. (Variable)

COMM DM 4652. Digital Media Projects — 1-6 hrs.

An advanced project for digital video, audio, or interactive media beyond the scope of existing courses. Students are selected through a competitive process and work under the supervision of faculty. May be repeated for maximum of 6 hours. Prerequisite(s): COMM DM 3651 or COMM DM 3652 or COMM DM 3653 or COMM DM 3654 or COMM DM 3655, or COMM DM 2652; junior standing; consent of instructor. (Variable)

COMM DM 4653/5653. Digital Media Distribution — 3 hrs.

Explores strategies for promoting film, television, games, news, and other digital media products and services. Focus includes media sales, distribution, and global media markets. Prerequisite(s): CM CORE 1010; junior standing. (Variable)

COMM DM 4654/5654. Digital Media Management — 3 hrs.

Explores how media managers oversee the financing, production, marketing and distribution of their media products and services. Examines innovative principles and practices of digital media management, with attention to leadership case studies from companies across media and technology sectors. Prerequisite(s): CM CORE 1010; junior standing. (Variable)

COMM DM 4655. Photojournalism — 3 hrs.

Introduces students to the concepts, principles, and practice of photojournalism through photo assignments, image editing, presentation in a variety of formats, and critical reviews of work. Prerequisite(s): COMM DM 2653 or consent of instructor; junior standing. For Interactive Digital Studies majors and minors: no prerequisites. (Variable)

COMM DM 4656/5656. Feature Writing — 3 hrs.

In-depth feature writing for beats including arts, entertainment, leisure, and travel for multiple news platforms. Prerequisite(s): COMM DM 2653 or ENGLISH 2015 or consent of instructor; junior standing. (Spring)

COMM PR: Communication and Media: Public Relations Courses

COMM PR 1811. Principles of Public Relations — 3 hrs.

Introduction to theories, processes, and techniques involved in researching, planning, and implementing programs designed to influence public opinion and human behavior. (Fall and Spring)

COMM PR 1840. Applied Public Relations — 1 hr.

Credit for approved work in public relations (e.g., problems of campaign on campus or in the community). May be repeated for

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maximum of 2 hours. Prerequisite(s): consent of instructor. (Fall and Spring)

COMM PR 3844/5844. Public Relations: Integrated Communications — 3 hrs.

Study of integrated approaches in PR practices including use of advertisement, IMC, promotion, and event techniques for relationship building and understanding of public behaviors. Prerequisite(s): junior standing. (Variable)

COMM PR 3855. Public Relations Writing — 3 hrs.

Conceptualization and multi-media adaptation of copy for public relations campaigns. (Fall and Spring)

COMM PR 3940. Advanced Applied Public Relations — 1 hr.

Credit for approved advanced work in public relations (e.g., problems of campaign on campus or in the community). May be repeated for maximum of 2 hours. Prerequisite(s): consent of instructor. (Fall and Spring)

COMM PR 4811/5811. Public Relations: Cases and Studies — 3 hrs.

Study of PR theories and academic research and application of theoretical understanding through analyses of recent PR cases. Prerequisite(s): senior standing or consent of instructor. (Variable)

COMM PR 4822/5822. Global Public Relations — 3 hrs.

Examination of PR research and practices in diverse countries and transnational organizations. Development of PR professionalism and ethics in intercultural/international contexts. Prerequisite(s): junior standing. (Variable)

COMM PR 4855/5855. Public Relations Campaign Methods — 3 hrs.

Analysis and production of public relations tools; techniques to gain reaction and support from specialized groups. Planning and preparation of public relations communications materials and use of controlled (public) media to reach target audiences. Prerequisite(s): COMM PR 1811; junior standing. (Variable)

COMM PR 4856/5856. Public Relations Special Events Planning — 3 hrs.

Special events planning provides the opportunity to unite global human society through large and small events. Sustainable and environmentally responsible strategies will be discussed and implemented in various activities. Sustainable event leadership will be highlighted as a best practice. Prerequisite(s): junior standing. (Variable)

COMM PR 4857/5857. Crisis Communication — 3 hrs.

Crisis communication is a critical component to the successful operation of many organizations. Many organizations and individuals are forced to confront some type of crisis at some point in their lifetime. This course is interested in defining and discussing crisis communication strategies and theories that can help protect organizations faced with a crisis. This course studies crisis communication from a wide variety of perspectives including: public relations, leadership, media theory, and interpersonal communication. Prerequisite(s): junior standing. (Variable)

COMM PR 4858/5858. Sports Public Relations — 3 hrs.

Sports public relations is a management function that builds beneficial relationships with athletes, managers, media, stakeholders, fans, and constituencies. This course focuses on team, league and organizational management and the building of brand, corporate, media, and fan relationships through creative communications. Prerequisite(s): junior standing. (Spring)

COMM PR 4859/5859. Social Media — 3 hrs.

This course is dedicated to exploring the new emerging technologies and mediums influencing many different venues such as public relations and message delivery. This course will acquaint you with practical knowledge and analytical skills necessary to create, evaluate, and execute social media and mobile campaigns. This course will also provide lectures, iconic and current case studies using social media and mobile, group and individual assignments, and engaged activities that will help you in developing a strong social media skill set to take to future job and/or internship interviews in your respective field of study. Prerequisite(s): junior standing. (Spring)

COMMGRAD: Communication and Media Graduate

Courses

COMMGRAD 6001. Introduction to Graduate Study and Research — 3 hrs.

Exploration of communication research methodologies and resources. (Fall and Spring)

COMMGRAD 6011. Communication and Media Theory — 3 hrs.

In-depth survey of historical and contemporary theories that inform and constitute the communication and media discipline. This course constitutes an interdisciplinary approach, with emphasis on postpositivist, interpretivist, critical, and postmodern theories of communication and media. (Spring)

COMMGRAD 6014. Seminar in Rhetoric — 3 hrs.

Various topics offered with specific title indicated in Schedule of Classes. May be repeated more than once on different topic. Prerequisite(s): COMMGRAD 6001 or approval of instructor. (Variable)

COMMGRAD 6016. Mass Communication Theory — 3 hrs.

For beginning graduate students to explore mass communication inquiry. Provides working knowledge of some of the major literature on mass communication theory and research. (Fall)

COMMGRAD 6022. Communication Research Methodology — 3 hrs.

Introduction to various research methods used in the study of communication. May be repeated for maximum of 9 hours if different section. Prerequisite(s): graduate standing; COMMGRAD 6001 or approval of instructor. (Fall and Spring)

COMMGRAD 6027. Seminar in Strategic Communication — 3 hrs.

Various topics offered with specific title indicated in Schedule of Classes. May be repeated more than once on different topic. (Variable)

COMMGRAD 6042. Seminar in Communication — 3 hrs.

Various topics offered with specific title indicated in Schedule of Classes. May be repeated more than once on different topic. (Variable)

COMMGRAD 6044. Seminar in Performance Studies — 3 hrs.

Various topics offered with specific title indicated in Schedule of Classes. May be repeated more than once on different topic. (Variable)

COMMGRAD 6045. Seminar in Communication Education — 3 hrs.

Various topics offered with specific title indicated in Schedule of Classes. May be repeated more than once on different topic. (Fall)

COMMGRAD 6046. Seminar in Visual and Digital Media — 3 hrs.

Various topics will be offered with specific title indicated in Schedule of Classes. May be repeated more than once on different topic. (Variable)

COMMGRAD 6299. Research.

Prerequisite(s): consent of department. (Fall, Spring, Summer)

COMMGRAD 6955. Projects in Communication Studies — 1-3 hrs.

May be repeated for maximum of 3 hours. Consent of departmental committee must be obtained before registration. (Variable)

CONSTR: Construction Management

Courses

CONSTR 1000. Fundamentals of Construction Management Materials & Methods — 3 hrs.

Acquaint students with the many facets related to construction processes by identifying roles and responsibilities within the construction industry. Students will be exposed to construction with hands on projects. (Fall and Spring)

CONSTR 1015. Introduction to Sustainability — 3 hrs.

Students will gain a basic understanding of sustainability, with focus on possibilities for harmonizing economic, ecological, and social goals for current and future generations. They will conduct practical exercises to enhance personal sustainability. (Fall and Spring)

CONSTR 1025. Construction Management Essentials & Professionalism — 3 hrs.

Students will gain knowledge and understanding of the construction management profession. This class will incorporate teamwork through an engaged learning based semester long project. Course topics include: general professionalism in the workplace, ethics, duty to society, professional organizations' codes of conduct, and project-based learning. This course is recommended to be taken in the first semester, for both first year students and students transferring into Construction Management. (Fall and Spring)

CONSTR 1050. Construction Safety — 3 hrs.

Examine the safety practices for the construction industry. Students will receive OSHA certified 30-Hour training during this course and understand the concepts of a Worksafe Program including regulations, safety audits, and costs impacting a company. (Fall and Spring)

CONSTR 1100. Construction Documents — 3 hrs.

Introduction to construction blueprint/plan and specification reading and how documents are created. Students will understand the relationship between plans and specs and how they impact the job. Exposure to old plan reading processes as well as new digital processes. Exposure to a physical 3D building as it relates to 2D prints so students can gain vision from concept to finished product. Prerequisite(s) or corequisite(s): CONSTR 1000. (Fall and Spring)

CONSTR 1600. Computer Aided Design & Drafting — 3 hrs.

Fundamental concepts and procedures of producing 2D drafting and 3D solid modeling applicable to design and/or drafting in such areas as architecture, construction, communications, electronics, manufacturing, and interior planning. Lab activities using CAD software on microcomputer systems. Software includes: AutoCAD, MicroStation, and Revit. (Fall and Spring)

CONSTR 2000. Land, Route, and Construction Surveying — 3 hrs.

Basic principles of construction surveying equipment, techniques, building layout and calculations. Training with surveying equipment such as automatic levelers, laser levelers, GPS, and total stations. Lecture and lab format. Prerequisite(s): MATH 1130; CONSTR 1100. (Fall and Spring)

CONSTR 2050. Construction Law — 3 hrs.

Examination of construction contract principles, construction documents, and the component parts of law affecting construction operations. Prerequisite(s) or corequisite(s): CONSTR 1000 or CONSTR 1100. (Fall and Spring)

CONSTR 2089. Seminar in Construction Management: (Topic) — 1-3 hrs.

Specialty topics in construction management and construction engineering practices that address current trends. May be repeated twice on different topics. Prerequisite(s): CONSTR 1000; CONSTR 1025; instructor consent. (Variable)

CONSTR 2200. Construction Project Administration — 3 hrs.

Examination of management techniques for all phases of a construction project. Course will cover project delivery methods, bidding and award, project control and documentation, project closeout and quality control. Students will use current project management software for the course. Prerequisite(s): CONSTR 1100. (Fall and Spring)

CONSTR 2300. Building Services — 3 hrs.

A study of mechanical and electrical construction, emphasizing heating and cooling equipment, ventilation requirements, plumbing systems, electrical equipment, lighting requirements, and electrical emergency design. Additional course topics which are closely aligned with mechanical and electrical construction include data systems, building security, fire alarm installation, fire suppression systems, elevator installation, and building code requirements. Prerequisite(s): CONSTR 1100. (Fall and Spring)

CONSTR 2400. Construction Materials — 3 hrs.

The course offers students hands-on experience testing and measuring the properties of common construction materials such as concrete, soil, masonry, asphalt and steel. Students will learn to evaluate material performance, understand industry standards, and apply laboratory results to actual construction scenarios. Lecture and lab. Prerequisite(s): CONSTR 1000; CHEM 1020. (Spring)

CONSTR 2800. Construction Management Engineering Mechanics — 3 hrs.

Students will develop a basic understanding of the forces acting on structures and analyze those forces in various designs. They will then look at the impact those forces have on the materials used in construction. Prerequisite(s): MATH 1420 or MATH 1150 or MATH 1130. Prerequisite(s) or corequisite(s): PHYSICS 1511 or PHYSICS 1701. (Fall and Spring)

CONSTR 3000. Heavy Construction Operations & Equipment — 3 hrs.

Examination of systems and operational procedures used for earth work heavy and highway projects. Analysis, selection, and management of heavy construction equipment. Prerequisite(s): PHYSICS 1511; CONSTR 2000; CONSTR 2400. (Fall)

CONSTR 3050. Construction Estimating — 3 hrs.

Construction cost analysis techniques for estimating materials, labor, equipment, and subcontracting costs in commercial building

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construction. Prerequisite(s): CONSTR 1000; CONSTR 1100. (Fall and Spring)

CONSTR 3150. Construction Project Planning, Scheduling and Control — 3 hrs.

Examine the construction process of a construction project as it relates to scheduling and planning. Students will gain exposure to planning and scheduling software while understanding the order of operations as it pertains to project workflow and following the critical path.

Prerequisite(s): CONSTR 2200. (Fall and Spring)

CONSTR 3300. Pre Construction Management — 3 hrs.

The course will cover construction topics from project inception through bid and award. Topics include: conceptual estimating, preconstruction scheduling, project design and project bidding and awards. Prerequisite(s): CONSTR 3150; CONSTR 2050; CONSTR 3050. (Fall and Spring)

CONSTR 4200. Structural Components of Construction — 3 hrs.

Examine structural construction materials such as concrete, steel, and wood structural components. Understand the process and methods of how these structural components are erected and how applying loads impact the structure. Prerequisite(s): CONSTR 2800. (Fall and Spring)

CONSTR 4350. Construction Management Financial Concepts — 3 hrs.

Topics related to the management and operation of a construction company. Topics include: human resource management, financial analysis, strategic planning, business development related to the construction industry, construction company legal requirements and company organization. Prerequisite(s): ACCT 2120; CONSTR 1050; CONSTR 2050; CONSTR 2200; junior standing. (Fall and Spring)

CONSTR 4500. Construction Management Capstone Project — 3 hrs.

Project-based experience that allows students to bridge the gap between academic instruction and real-world practice using teamwork, construction management knowledge, technical communication, problem solving, estimating, safety, quality, project management techniques, technical knowledge, and ethical professional responsibilities. Teams will work with clients on the development, project management and installation of a specific project. Recommended to be taken in the last semester of undergraduate studies as a declared major in the Department of Construction Management. Prerequisite(s): ENGLISH 3772/5772; PHIL 1560; CONSTR 3050; CONSTR 3150; senior standing. (Fall and Spring)

COUN: Counseling

Courses

COUN 4100. Introduction to Professional Counseling — 3 hrs.

General overview of the profession of counseling. Outlines the different areas of expertise such as clinical mental health, school, substance abuse, rehabilitation, career, and couples/marriage counseling among others. General theories, ethical, and legal issues are explored. Examination of current trends in the profession of counseling and the evolving profile of a professional counselor. Prerequisite(s): junior standing. (Spring)

COUN 4105/5105. Counseling Skills — 3 hrs.

Focus on developing counseling skills with emphasis on self-understanding. Verbal and non-verbal counseling skills are developed through lecture, demonstration, and extensive laboratory practice.

Prerequisite(s): junior standing; consent of department head. (Fall and Spring)

COUN 4198. Independent Study — 1-6 hrs.

(Variable)

COUN 6103. Professional Orientation and Ethics in Counseling — 3 hrs.

This course offers an introduction to the history and philosophy of the counseling profession and its specialized practice areas; the multiple professional roles and functions of counselors; responsibilities and relationships of counselors on interprofessional teams; the role of advocating for individuals and the profession; professional counseling organizations, credentialing, accreditation, and current labor market trends; legislation, regulatory processes, and government/public policy impacting service delivery. This course emphasizes evidence-informed and ethical counseling practice through 1) professional counselor identity development including a focus on self-care, self-awareness, and self-evaluation strategies; 2) an introduction to research informing and advancing counseling practice; 3) an introduction to ethical standards and ethical decision-making; as well as 4) an introduction to the role of supervision in counselor development. (Fall)

COUN 6104. Counseling Theories — 3 hrs.

Overview of predominant counseling and human development theories, including emphasis on learning and personality development and normal and abnormal human behavior. Stresses practical applications in school and mental health settings. Prerequisite(s): consent of department head. Prerequisite(s) or corequisite(s): COUN 6103; COUN 4105/5105. (Fall)

COUN 6207. Diagnosis and Psychopharmacology in Counseling — 3 hrs.

This course will provide an opportunity for students to acquire knowledge of psychopathology, etiology, diagnosis, and treatment of mental and emotional disorders and dysfunctional behavior. Students will learn the drug mechanisms and drug actions for drugs used in the treatment for mental disorders, the efficacy and risks of specific classes of drugs and the roles of the non-prescribing mental health professional in combination treatment of mental disorders. Prerequisite(s): COUN 6103; COUN 4105/5105; COUN 6104. (Summer)

COUN 6210. Developing Comprehensive School Counseling Programs — 3 hrs.

Focus on managing, organizing, and designing K-12 comprehensive, sequential, developmental guidance programs. Prerequisite(s): School Counseling major; COUN 6103; COUN 4105/5105; consent of department head. (Summer)

COUN 6220. Group Counseling Skills and Processes — 3 hrs.

Emphasis on theoretical and experiential understandings of group dynamics, development, theories, and methods. Focus on group leadership and group membership. Experiential laboratory participation incorporated. Prerequisite(s): COUN 6103; COUN 4105/5105; consent of department head. (Fall and Spring)

COUN 6225. Facilitating Career Development — 3 hrs.

Exploration of career development theory and career counseling techniques. Emphasis on significance of occupational choice; examination of sociological, psychological, and economic factors. Prerequisite(s): COUN 6103; COUN 4105/5105; consent of department head. (Summer)

COUN 6228. Assessment Techniques in Counseling — 3 hrs.

Assessment and appraisal procedures of individuals and groups. Primary focus on the understanding and use of standardized

and non-standardized tests, inventories, observations, and case data for diagnosis in counseling. Prerequisite(s): COUN 6103; COUN 4105/5105; COUN 6207 (highly recommended); consent of department head. (Fall and Spring)

COUN 6242. Counseling Research and Program Evaluations — 3 hrs.

This course focuses on the use of research to inform counseling practice and to advance the counseling profession. This course will provide an overview of the practitioner-scholar approach to identifying research questions, collecting data, interpreting results, and presenting information to stakeholders. Students will identify and evaluate the evidence base upon which interventions and programs are designed, selected, and implemented. Students will become familiar with research designs, methods, and analysis, and articulate the strengths and limitations of relevant research studies. Students will become familiar with program evaluation designs and procedures and will describe how to conduct needs assessments as well as how to conduct routine outcome monitoring. Prerequisite(s): COUN 6103. (Fall and Spring)

COUN 6254. Counseling Children and Adolescents — 3 hrs.

Normal and abnormal child/adolescent development, problem conceptualization from an individual as well as a systems-based perspective, and development of advanced-level counseling skills with emphasis on age-appropriate assessment and interventions. Lab practice and actual counseling experience with young clients. Prerequisite(s): COUN 4105/5105 (grade of B or higher); COUN 6262 (highly recommended); consent of department head. (Fall)

COUN 6256. Multicultural Counseling — 3 hrs.

This course provides an overview of, and practice applying, theories and models of multicultural counseling, social justice, and advocacy; exploring the influence of heritage, cultural identities, attitudes, values, beliefs, understandings, within-group differences, and acculturative experiences on the worldviews of counselors and clients and on help-seeking and coping behaviors; and exploring the impact of historical events, multigenerational trauma, and current issues on mental health and wellbeing. The course includes identifying strategies for eliminating barriers and supporting autonomy, choice, and empowerment in accessing resources and services. Prerequisite(s): COUN 6103; COUN 4105/5105; COUN 6262; consent of department head. (Spring and Summer)

COUN 6262. Intervention and Prevention in Lifespan Development — 3 hrs.

Explores crises and challenges during developmental stages, which may bring individuals, couples, or families to counseling. Discussion of diversity, human development theory, and ethical considerations in lifespan development for application to counseling. Prerequisite(s): COUN 6103; COUN 4105/5105; consent of department head. (Fall)

COUN 6283. Counseling Older Adults — 3 hrs.

This course takes a lifespan development approach to understanding the aging process, changes, and challenges experienced by older adults with an emphasis on establishing effective counseling relationships. The course focuses on designing developmentally and culturally sensitive interventions to address life transitions, tasks, and roles; to respond to mental health concerns; and to promote psychological well-being. Attention is given to how historical, societal, and cultural factors shape perceptions of aging and access to resources and support in older adulthood. (Fall and Spring)

COUN 6285. Readings in Counseling.
(Variable)

COUN 6289. Seminar in Counseling.

Special topics as indicated in the Schedule of Classes. (Variable)

COUN 6290. Practicum in Counseling — 3 hrs.

First-level intensive experience designed to further develop individual and group counseling skills. Offered on credit/no credit basis only. Prerequisite(s): COUN 6104; COUN 4105/5105; COUN 6262; consent of department head. (Fall and Spring)

COUN 6291. Internship — 3-6 hrs.

Advanced intensive experience designed to integrate counseling and consultation skills in a work setting. Offered on credit/no credit basis only. May be repeated for up to 12 credits. Six hours are required for students to complete requirements for licensing in each emphasis area (Clinical Mental Health or School Counseling). Prerequisite(s): for School Counseling: COUN 6262; COUN 6290; consent of department head. Prerequisite(s) for Mental Health Counseling: COUN 6290; consent of department head. (Fall and Spring)

COUN 6299. Research.

Prerequisite(s): consent of department. (Variable)

COUN 6304. Crisis and Trauma Intervention and Management — 3 hrs.

This course provides an opportunity to learn the necessary crisis counseling skills to apply in various school and mental health settings. Students will design specific crisis and trauma informed interventions and community-based strategies for management and treatment of individuals and groups during crisis, disasters, or traumatic experiences. Students will identify counselors' roles and responsibilities as members of interdisciplinary community outreach and emergency management response teams. Students will apply procedures for assessing risk of aggression or danger to others, self-inflicted harm, or suicide to crisis case studies according to Council of the Accreditation of Counseling and Related Educational Programs (CACREP) standards. Prerequisite(s): COUN 6103; COUN 4105/5105 (grade B or higher); COUN 6104. (Summer)

COUN 6405. Advanced Psychopathology and Treatment — 3 hrs.

This course will provide students with the opportunity to acquire knowledge of the general principles of diagnosis, neuroscience, and treatment and prevention of dysfunctional behavior and mental-emotional disorders. Students will develop an advanced understanding of therapeutic change, create clinical hypothesis, and build case conceptualization and treatment planning skills based on the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) and American Mental Health Counseling Association (AMHCA) Standards of Practice for Clinical Mental Health Counselors. Students will apply clinical knowledge to case studies and integrate. Prerequisite(s): COUN 6103; COUN 4105/5105 (grade B or higher); COUN 6104; COUN 6207 (grade of B or higher); or consent of department head. (Fall)

COUN 6406. Foundations of School Counseling — 3 hrs.

This course provides students the opportunity to gain knowledge and information pertaining the basic principles of supervision, its stages of development, theories associated with it, and its ramifications for school counselors in the field. Students will have the opportunity to integrate theory and application via the introduction of school guidance activities in the classroom for students at the K-12 level using the basic tenets of the comprehensive guidance system established by the American School Counseling Association (ASCA) and the Council for the Accreditation of Counseling and Related Educational Programs (CACREP), apply clinical knowledge to case studies and integrate. Additionally, core curriculum design, lesson plan development, classroom management strategies, and differentiated

Course Descriptions

instructional strategies are applied and integrated based on age appropriate levels. Prerequisite(s): COUN 6103; COUN 4105/5105 grade B or higher; COUN 6210 grade B or higher. (Fall)

COUN 6503. Wellness, Self-Care, and Brain-Based Strategies — 3 hrs.

This course provides students the opportunity to develop intervention and prevention strategies regarding wellness and self-care of clients and counselors. Students will integrate neuroscience principles and counseling practice that demonstrate the use of brain-based strategies which align with the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) standards. Prerequisite(s): COUN 6103; COUN 4105/5105 (grade of B or higher); COUN 6104. (Spring)

COUN 6505. Dynamics of Family, Couples and Human Sexuality in Counseling — 3 hrs.

This course provides an overview of the historical and theoretical foundations of counseling couples and families. Students apply systems and social constructionist theories and models to assessing couples and families, conceptualizing concerns, designing interventions, and promoting wellbeing. The course addresses developmental life cycles of families and relationships; strengths-based approaches to relationships; the integration of theory and research into practice, and ethical and cultural considerations relevant to working with couples and families. An additional emphasis is on sexual health and wellbeing within relationships. Prerequisite(s): COUN 6103; COUN 4105/5105; COUN 6104; COUN 6207 (grade of B or higher); COUN 6405 (grade of B or higher). (Fall and Spring)

COUN 6506. Counseling Issues with Families and Parents in School Settings — 3 hrs.

This course provides an overview of the application of family counseling concepts and techniques in school settings. It examines four specific modes of counselor intervention: (a) collaborating with parents and teachers to resolve individual student issues, (b) providing staff training and consultation to address common needs of students and their families, (c) designing school-wide interventions to change the culture of the school so as to more fully engage families and facilitate student development, and (d) building referral relationships with professionals in the community to address student needs. It embraces the school counselor roles of leader, advocate, collaborator and system change agent and facilitates an epistemological shift from an individual/intrapsychic way of thinking to a relational/systemic way of thinking in designing and providing counseling services. Prerequisite(s): COUN 6103; COUN 4105/5105 (grade of B or higher); COUN 6210 (grade of B or higher); COUN 6406 (grade of B or higher). (Spring)

COUN 6605. Counseling Practices for Addictions and Co-Occurring Disorders — 3 hrs.

Develops advanced-level counseling skills necessary for clinical practice in mental health and substance abuse treatment settings. Focus on case conceptualization and specific interventions for initiating, sustaining, and terminating a counseling experience addressing substance abuse and co-occurring disorders as outlined in the American Mental Health Counseling Association Standards for the Practice of Clinical Mental Health Counseling and related Council for the Accreditation of Counseling and Related Educational Programs (CACREP) standards. Extensive skill practice/lab. Prerequisite(s): COUN 6103; COUN 4105/5105; COUN 6104; COUN 6207 (grade B or higher); COUN 6405 (grade B or higher); COUN 6506 (grade B or higher). (Spring)

COUN 6706. Current Issues in School Counseling — 3 hrs.

This course provides an overview of the current legal, licensure, ethical and professional issues in school counseling. It also emphasizes data collection and usage to enhance a school counselor's accountability applying the National Model established by the American School Counseling Association (ASCA). Prerequisite(s): COUN 6103; COUN 4105/5105; COUN 6104 (grade of B or higher); COUN 6210; COUN 6406; COUN 6506. (Summer)

COUN 6710. Foundations and Contemporary Issues in School Counseling — 3 hrs.

This course provides students with opportunities to integrate theory and application through the design, evaluation, and implementation of comprehensive school-counseling curricula and lesson plans for K-12 settings, aligned with ASCA's National Model and CACREP standards. Students will learn to employ diverse classroom-management approaches and differentiated-instruction strategies while addressing legal, ethical, and data-driven accountability requirements. Emphasis is placed on social-emotional and trauma-informed counseling techniques, strategies to enhance student promotion and graduation rates, and evidence-based, culturally sustaining interventions to promote academic development. (Fall and Spring)

COUN 6720. Leadership, Consultation, and Collaboration in School Counseling — 3 hrs.

This course provides an overview of the most up-to-date school-based collaboration and consultation models consistent with the American School Counseling Association (ASCA) model and school counseling competencies. It examines four specific modes of counselor intervention: (a) collaborating with parents and teachers to resolve individual student issues, (b) providing staff training and consultation to address common needs of students and their families, (c) designing school-wide interventions to change the culture of the school so as to more fully engage families and facilitate student development, and (d) building referral relationships with professionals in the community to address student needs. It has practical applications and techniques on how to foster collaboration and teamwork within schools and community agencies using the principles of multidisciplinary teams from a school counseling perspective according to the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) standards. It embraces the school counselor roles of leader, advocate, collaborator and system change agent in PK-12 schools and facilitates an epistemological shift from an individual/intrapsychic way of thinking to a relational/systemic way of thinking in designing and providing counseling services. Prerequisite(s): COUN 6103; COUN 4105/5105. (Fall and Spring)

COUN 6805. Integrated Counseling Practice and Clinical Supervision — 3 hrs.

Provides an overview of integrated behavioral health counseling practice, legal and licensure issues related to mental healthcare settings, and the consultation and supervision processes provided by clinical mental health counseling professionals as outlined in the American Mental Health Counseling Association (AMHCA) Standards for the Practice of Clinical Mental Health Counseling and standards of the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). Prerequisite(s): COUN 6103; COUN 4105/5105; COUN 6104; COUN 6207 (grade of B or higher); COUN 6405 (grade of B or higher); COUN 6605 (grade of B or higher). (Spring and Summer)

COUN 6806. Leadership, Consultation, and Collaboration in School Counseling — 3 hrs.

This course provides an overview of the most up-to-date school-based collaboration and consultation models consistent with the American School Counseling Association (ASCA) model and school counseling competencies. It encapsulates the school counselor's roles as leaders, advocates, and system change agents in P-12 schools. It has practical applications and techniques on how to foster collaboration and teamwork within schools and community agencies using the principles of multidisciplinary teams from a school counseling perspective. Prerequisite(s): COUN 6103; COUN 4105/5105 (grade of B or higher); COUN 6210 (grade of B or higher); COUN 6406 (grade of B or higher); COUN 6506 (grade of B or higher); COUN 6706 (grade of B or higher). (Spring)

COUN 6807. Clinical Mental Health Counseling: Foundations and Systems — 3 hrs.

This course addresses the foundation and evolution of the clinical mental health counseling specialization, as well as current issues and practices. This course focuses on systems-based collaboration, consultation, and advocacy; supervisory, legislative, government policy, and regulatory processes; practice management issues and reimbursement; and interfacing with other systems and stakeholders including integrated behavioral health teams and the legal system. (Fall and Spring)

CRIM: Criminology

Courses

CRIM 2022. Criminal Justice System — 3 hrs.

History, development, and day-to-day operation of the criminal justice system within our society. Emphasis is placed on interrelationships between specific stages in the crime-control process, the three major components of the criminal justice system (police, courts, and corrections), and current issues/problems that the criminal justice system faces. (Fall and Spring)

CRIM 2025. Criminology — 3 hrs.

Introduction to the study of criminal behavior with an emphasis on theories of crime causation. Strategies for reducing crime based on theoretical explanations and existing data are also discussed. This class also covers methods of how crime data is collected and how that data is used in the criminal justice system to change policing tactics, create crime prevention programs, and administer correctional programming. (Fall and Spring)

CRIM 2127. Juvenile Delinquency — 3 hrs.

Examination of the causes of delinquency in children, focusing on the effects of parenting, youth subcultures, and the media. Includes youth crimes, such as shoplifting and vandalism. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2025. (Spring)

CRIM 2134. Crime Analysis — 3 hrs.

Provides an introductory understanding of the history and methodology of examining crime information. Covers applied technical skills for managing, analyzing, and presenting data relevant to criminal justice agencies. Prerequisite(s): SOC SCI 2020 or STAT 1772; sophomore standing. (Fall)

CRIM 2152. Crime and Community — 3 hrs.

Exploration of the connection between community characteristics and crime with an emphasis on crime in the inner city. Students are presented with theories that address why some neighborhoods have

concentrated crime and learn about what scholars, organizers, police, and politicians can do to reduce crime. (Fall)

CRIM 2217. Community Corrections — 3 hrs.

Community corrections covers all forms of punishment that take place in the community, from probation and parole to electronic monitoring, fines, boot camps, and intensive supervision. This class includes discussion of supervision and treatment options with all types of offenders, including sex offenders, mentally ill offenders, and those addicted to drugs and alcohol. Restorative justice and prison reentry programs are also covered. Prerequisite(s): CRIM 2022; sophomore standing. (Variable)

CRIM 2232. Juvenile Justice — 3 hrs.

This course examines the ways that juveniles come into contact with the justice system through schools and policing, the varied experiences of juveniles in the courts and in custody, and what happens when juveniles are released from supervision. This course asks how power, race, social class, and gender impact a juveniles path through the system and their outcomes. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2022. (Spring)

CRIM 2500. Criminal Law and Procedure — 3 hrs.

This course covers the development of criminal law in America, including the historical development of 4th, 5th, 6th, 8th and 14th Amendment rights. Criminal law generally defines the rights and obligations of individuals, while procedural law concerns the protection of individual rights through all phases of the criminal justice process from first contact with police through trial and sentencing. Emphasis is on practical knowledge of procedural law for criminal justice workers. Prerequisite(s): CRIM 2022. (Variable)

CRIM 2502. Report Writing in Criminal Justice — 3 hrs.

This course provides an overview of written and oral communication for criminal justice professionals, including its purposes, policies, procedures and processes. Emphasis is on written documents prepared by the professional, but some attention will be given to oral communication, especially on practical skills such as testifying in court, interviewing victims, witnesses and suspects, and dealing with the media and the public. Prerequisite(s): CRIM 2022. (Variable)

CRIM 2504. Criminal Investigation — 3 hrs.

Covers fundamental principles and procedures employed in the investigation of a crime. Explores the primary components of interviewing and investigations; practices in the apprehension of suspects; preparation of criminal cases. This course is designed to develop a working knowledge of the steps in investigation from the initial securing of a crime scene to the presentation of evidence in trial. Prerequisite(s): CRIM 2022. (Variable)

CRIM 2506. Criminalistics — 3 hrs.

Introduction to the theory and practices of the collection, preservation, and analysis of physical evidence at a crime scene. Introduces students to the functions of the forensic laboratory and its relationship to successful investigations and prosecutions. Topics covered include crime scene processing, investigative techniques, and current forensic technologies. Prerequisite(s): CRIM 2022. (Spring)

CRIM 3100. Social Deviance and Control — 3 hrs.

Causes and consequences of socially-disapproved behavior; role of social control agencies in recruitment of deviant identities, management of and reaction to deviance; dynamics of labeling processes, and examination of social meaning of non-normative behavior. Prerequisite(s): SOC 1000 or SOC 1060; junior standing. (Spring)

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CRIM 3120. Collateral Consequences of Corrections — 3 hrs.

Examination of the social history of crime and punishment in American society through various correctional theories, and how it relates to correctional policy, power relations, and cultural values. A special focus on mass incarceration and issues related to corrections in the 21st century is provided. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2022 or CRIM 2025; junior standing. (Spring)

CRIM 3122. Youth Gangs — 3 hrs.

Origins and development of youth gangs in United States. Topics include recent emergence of gangs, especially in Iowa, relationship between drugs and violence and gang activity, and creation of social policy to prevent and control gang activity. (Variable)

CRIM 3151. Crime and Social Inequality — 3 hrs.

This class explores the significance of race, ethnicity, class, and gender inequality in the criminal justice system, including the relationship of inequality to law creation, law enforcement, court decisions, and correctional placement and treatment. A particular focus is placed on how ethnicity, race, class, and gender disparities are created in the system and what can be done to change these patterns. Prerequisite(s): SOC 1000 or SOC 1060; junior standing. (Variable)

CRIM 3179. Cooperative Education — 1-3 hrs.

May be repeated for a total of six credit hours (only three credit hours may count towards completion of the Criminology major). Prerequisite(s): consent of instructor and department head and Cooperative Education Office. (Fall, Spring, Summer)

CRIM 3200. Professional Communication in Criminal Justice — 3 hrs.

Effective communication, both as an individual and as part of group, is an essential skill for any criminal justice professional. In this course, students will become familiar with and apply learned skills to different communication processes in the criminal justice system. Students will learn and apply non-verbal, written and oral communication skills to a variety of scenarios, including interviewing, interrogation, contact with the general public, social media, and interdepartmental communications. Emphasis is placed on the importance of ethical communications, both as an individual and as a group, between criminal justice professionals and offenders, victims, colleagues, and the general public. Prerequisite(s): CRIM 2022. (Variable)

CRIM 3225. Criminal Court System — 3 hrs.

This course will explore the various roles of court personnel, attorneys, defendants, witnesses, and jurors. This course focuses on the impact of social inequality on the structure and operation of criminal courts in the United States. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2022. (Variable)

CRIM 3226. Crime and Punishment — 3 hrs.

Crime and punishment in American society, social history of punishment, theories of punishment, and how it relates to prison subcultures, crime rates, power relations, and cultural values. A special focus on incarceration in the 21st century is provided. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2022. (Variable)

CRIM 3228. Mental Health and the Criminal Justice System — 3 hrs.

Critical examination of issues related to mental health within the criminal justice system. This course will consider both the ways that individuals with mental health issues are disproportionately likely to have contact with the criminal justice system as well as the ways that the criminal justice system impacts mental health of individuals. Prerequisite(s): SOC 1000 or SOC 1060 or CRIM 2022. (Spring)

CRIM 3300. Human Trafficking — 3 hrs.

The course is designed to provide a better understanding of the scope and magnitude of human trafficking, both domestically and globally. We will explore its historical development, terminology, theories, laws/policies, and factors known to be associated with both sex and labor trafficking. We will discuss the policing of human trafficking, as well as important court and legal cases and punishment of offenders. We will also learn about the physical, emotional, and psychological trauma experienced by human trafficking victims, as well as the roles of the government, the media, faith-based organizations, organized crime, and culture play in both the growth of human trafficking as well as anti-trafficking. (Fall)

CRIM 3314. Ethics in Crime, Law and Justice — 3 hrs.

Critical examination of ethical issues and dilemmas facing criminal justice professionals, framed within the context of both theoretical ethical systems and applied context. Ethical issues and dilemmas related to students and the general public are also discussed. (Variable)

CRIM 3319. Victimology — 3 hrs.

Sociological investigation of institutional, economic, family, and personal victimization in American society with special attention to causes and processes of exploitation. Prerequisite(s): junior standing. (Fall)

CRIM 3350. Corrections Special Topics — 3 hrs.

Topics courses in corrections focus on a wide variety of issues related to either or both community-based corrections, incarceration, or correctional alternatives. Topic listed in Schedule of Classes. May be repeated for maximum of 6 hours. (Variable)

CRIM 3360. Law Enforcement Special Topics — 3 hrs.

Topics courses in law enforcement focus on a wide variety of issues related to policing, law enforcement officers, etc. Topic listed in Schedule of Classes. May be repeated for maximum of 6 hours. (Variable)

CRIM 3369. Drugs and Society — 3 hrs.

This course explores the history of the regulation of psychoactive substances in the United States. In addition, this course provides an overview of social science research on drug use, drug enforcement, and media portrayals of drug use. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2025. (Variable)

CRIM 3371. Topics in Criminal Justice — 3 hrs.

Topics courses in criminal justice focus on wide variety of issues related to police, courts, and corrections. Topic listed in Schedule of Classes. May be repeated for maximum of 6 hours. (Variable)

CRIM 3381. Topics in Criminology — 3 hrs.

Topics courses in criminology focus on issues related to the definition, causes, patterns consequences, control, and political and social reactions to crime. Other topics focus on specialized topics of interest related to the field of criminology. Topic listed in Schedule of Classes. May be repeated for maximum of 6 hours. (Variable)

CRIM 3400. Police and Society — 3 hrs.

This course is a study of the criminal justice system and the problems it confronts to assess whether or not it effectively reduces crime and achieves justice. We will learn about the law and processes of the justice system in order to evaluate its proficiency as an instrument of social control. It covers the workings of law enforcement, the courts, and the correctional system, as well as juvenile justice. It reviews what constitutes crime, how crime is measured, and the theories used to explain crime. We will also examine the ideals and objectives of law enforcement, and we will explore sociological issues of race, class, gender, and power, in order to develop more effective strategies

in the planning and development of crime policy. Additionally, this course looks to the future and outlines some of the pressing issues that continue to challenge crime control in a democratic society. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2022. (Spring)

CRIM 3500. Advanced Criminal Procedure — 3 hrs.

This course draws on social science research to explore the gap between the law on the books and the law in practice. This course will cover major areas in American criminal procedure like search and seizure, Miranda rights, and the right to counsel. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2022. (Variable)

CRIM 3555. Field Placement I — 1-6 hrs.

Applied learning through internship placement or current work in a criminology-related agency. Intended for Criminology and Criminal Justice majors. Prerequisite(s): Major GPA of 2.0 or higher; CRIM 2022; CRIM 2025; at least one upper division elective course (CRIM 3XXX or CRIM 4XXX) at UNI; consent of instructor and department head. (Fall, Spring, Summer)

CRIM 3575. Career Preparation: Getting and Surviving the Job — 3 hrs.

This course covers information related to career preparation and employability. It also emphasizes personal growth and development while at the same time covering topics and issues relevant for all criminal justice professions. Prerequisite(s): Criminology major or minor only; junior standing or consent of instructor. (Fall and Spring)

CRIM 3600. Advanced Criminological Theory and Policy — 3 hrs.

This course will involve an in-depth look into criminological theories of crime and explore the intersection between theory and policy. Classic sociological theories of crime will be explored as well as new emerging theories. The course will focus on how theory can be used to shape policy. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2025. (Variable)

CRIM 3700. Gendered Violence and the Legal Process — 3 hrs.

This course examines gender-based violence and related legal processes. It draws on theoretical, historical, criminological and legal literature. The course explores aspects of violence with specific attention to gender and sexuality considerations. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2025. (Variable)

CRIM 3800. Media & Crime — 3 hrs.

This course examines how the media influences various aspects of crime and justice. Using the theoretical perspective of social constructionism, we examine the myths and realities of crime-related portrayals in the media. We focus specifically on how media portrayals of crime, criminals, and victims influence police actions, court processing, correctional procedures, and criminal justice policy. Subtopics may include media portrayals of domestic violence, sexuality, pornography, masculinity, race, and gender. (Variable)

CRIM 4137. Homicide — 3 hrs.

Presentation of a description, discussion, and evaluation of the various types of homicide. Focus on the characteristics and backgrounds of homicidal offenders. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2025; junior standing. (Spring)

CRIM 4198. Independent Study — 1-3 hrs.

May be repeated with department head approval. Prerequisite(s): consent of instructor and department head. (Variable)

CRIM 4216. Correctional Treatment: Theory and Practice — 3 hrs.

Examination of evolution and development of correctional treatment in United States, with special attention to description and evaluation of

programs in juvenile and adult corrections. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2022 or CRIM 2025; junior standing. (Fall)

CRIM 4253. Crime and Public Policy — 3 hrs.

Analysis of public policy issues related to crime and justice. Focus on the design, implementation and evaluation of public policy responses to criminal behavior. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2022; junior standing. (Fall)

CRIM 4300. Wrongful Convictions — 3 hrs.

This class explores the variety of ways that innocent people can be convicted of crimes they did not commit. We will consider problems that can occur in the investigation and prosecution processes and we will consider the steps that can be taken to reduce or eliminate these problems. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2022; junior standing. (Variable)

CRIM 4331/5331. Women, Crime and Society — 3 hrs.

Sociological analysis of women as victims, offenders, practitioners, and professionals in the criminal justice system. Examination of changing perceptions and behaviors of women in United States and other countries in relation to role expectations of women in criminal justice system. Prerequisite(s): SOC 1000 or SOC 1060; junior standing. (Variable)

CRIM 4500. Criminology Independent Study — 1-3 hrs.

Independent study course. Details to be determined by faculty and student. May be repeated with department head approval. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2025; junior standing; consent of instructor and department head. (Variable)

CRIM 4550. Criminal Justice Independent Study — 3 hrs.

Independent study course. Details to be determined by faculty and student. May be repeated with consent of department head. Prerequisite(s): SOC 1000 or SOC 1060; CRIM 2025; junior standing; consent of instructor and department head. (Variable)

CRIM 4555. Field Placement II — 1-6 hrs.

Advanced applied learning through internship placement or current work in a criminology-related agency. Intended for students who have completed a previous Professional Development Elective. A maximum of 3 credits of CRIM 3555 or CRIM 4555 can count toward the major. Any additional credits may count as general electives. Prerequisite(s): Major GPA of 2.0 or higher; prior completion of CRIM 3555 or 3575; junior standing; consent of instructor and department head. (Fall, Spring, Summer)

CS: Computer Science

Courses

CS 1000. Computing Skills and Concepts — 3 hrs.

Introduction to operation, applications, implications of computers, microcomputers, and network communications. Develops skill in current applications and sensitizes students to societal issues related to computing. (Fall and Spring)

CS 1025. Modern Tools for Exploring Data — 3 hrs.

Explores use of computational tools to explore data sets, find patterns, and solve complex problems. Topics include representing problems, modeling data, simulating processes, and validating models, with applications in the sciences, social sciences, humanities, and business. (Fall and Spring)

CS 1100. Web Development: Client-Side Coding — 3 hrs.

Client-side Web development adhering to recent/current Web standards. Includes by-hand Web page development involving basic

Course Descriptions

HTML, CSS, data acquisition using forms, and JavaScript for data validation and simple Web-based tools. (Fall)

CS 1120. Media Computation — 3 hrs.

Introduction to computation, algorithmic thinking, data transformation and processing, and programming in the context of media such as images, sound, and video. (Spring)

CS 1130. Visual BASIC Programming — 3 hrs.

Programming using the language Visual BASIC. Broad coverage of language syntax, programming practice, and programming problems appropriate to the novice or end-use programmer using a personal computer. (Fall and Spring)

CS 1160. C/C++ Programming — 3 hrs.

Programming using the C and C++ languages including the object-oriented paradigm. Broad coverage of language syntax and programming practice. Appropriate for developers of general computing applications and systems. Course presumes no prior programming experience. (Fall)

CS 1170. Introductory Programming for Data Science — 3 hrs.

Explores use of software development and tools to explore data sets, find patterns, and solve complex problems in the area of data science. Topics include introductory programming methodologies, data visualization, and an introduction to data mining. (Fall)

CS 1410. Computer Organization — 3 hrs.

Study of computers in terms of their major functional units. Machine representations of data, digital logic, memory, CPUs, buses, and input/output. Instruction set architectures and their implementations, addressing methods, and sequencing. Assembly language programming. Prerequisite(s) or corequisite(s): CS 1510. (Fall and Spring)

CS 1510. Introduction to Computing — 4 hrs.

Introduction to software development through algorithmic problem solving and procedural abstraction. Programming in the small. Fundamental control structures, data modeling, and file processing. Significant emphasis on program design and style. (Fall and Spring)

CS 1520. Data Structures — 4 hrs.

Introduction to use and implementation of data structures such as sets, hash tables, stacks, trees, queues, heaps, and graphs. Additional topics include searching algorithms, sorting algorithms, and algorithmic time and space complexity analysis. Design and implementation of programs using functional decomposition. Prerequisite(s): CS 1510 or department approval. Prerequisite(s) or corequisite(s): CS 1800 or department approval. (Fall and Spring)

CS 1800. Discrete Structures — 3 hrs.

Introduction to logical forms, arguments, predicates, and quantified statements; methods of proof; elementary number theory; counting; sequences; sets; functions; relations; graphs; and Boolean algebra in the context of computer science. Prerequisite(s): CS 1130, CS 1160, or CS 1510. (Fall and Spring)

CS 2100. Web Development: Server-side Coding — 3 hrs.

Development of interactive web sites: server-side scripting; database definition and use; site security; and additional topics as time allows. Prerequisite(s): CS 1100 or consent of instructor. (Fall and Spring)

CS 2150. Computing for Data Science — 3 hrs.

Introduction to basic data and file structures for data science, such as sets, lists, matrices, and maps, and the algorithms that use them. Boolean algebra and its role in reasoning about data. Basics of the software development life cycle with emphasis on requirements and

testing. Not available for credit to students with credit in CS 1800 or CS 1520. Prerequisite(s): CS 1510; consent of department. (Spring)

CS 2420. Computer Architecture and Parallel Programming — 3 hrs.

Computer architecture of uniprocessor and multiprocessor systems with an emphasis on parallel programming to achieve high performance. Topics include processor design (pipelining and superscalar), memory hierarchy, interconnection networks, performance metrics, parallel program design, and parallel programming tools for multi-core systems, clusters, and graphics processing units. Prerequisite(s): CS 1410. (Fall)

CS 2470. Networking — 3 hrs.

Network architectures and communication protocol standards. Topics include communication of digital data, data-link protocols, local-area networks, network-layer protocols, transport-layer protocols, applications, network security, and management. Prerequisite(s): CS 1520; CS 1800. Prerequisites for Department of Applied Engineering majors: TECH 1037; TECH 2051; TECH 2053; CS 1160. (Fall)

CS 2530. Intermediate Computing — 3 hrs.

Intermediate software development in an object-oriented environment. Further experience with object-oriented analysis and design, including modeling languages. Focus on software reuse through frameworks and patterns and on software development methodology and tools. Prerequisite(s): CS 1510; CS 1520; CS 1800; or department approval. (Fall and Spring)

CS 2720. Software Engineering — 3 hrs.

Study of software life cycle models and their phases--planning, requirements, specifications, design, implementation, testing, and maintenance. Emphasis on tools, documentation, and applications. Prerequisite(s): CS 1520; CS 1800. (Spring)

CS 2880. Topics in Computing — 3 hrs.

Topics from recent developments in computing appropriate to students with limited computer science background, often relating to relatively sophisticated or technical use of computing or recent developments in programming. May be repeated on different topic. (Variable)

CS 3110. Web Application Development — 3 hrs.

Development of web applications such as content management systems. Involves HTML and CSS coding, client- and server-side scripting, the creation and manipulation of databases to generate web pages, and secure authentication of users. Prerequisite(s): CS 1520; CS 1100 or COMM 3555. (Variable)

CS 3120/5120. User Interface Design — 3 hrs.

Examination of the theory, design, programming, and evaluation of interactive application interfaces. Topics include human capabilities and limitations, the interface design and engineering process, prototyping and interface construction, interface evaluation, and possibly topics such as data visualization and the World Wide Web. Prerequisite(s): for Computer Science majors: CS 1520; CS 1800; junior standing. Prerequisite(s) for non-Computer Science majors: junior standing; department approval. (Fall)

CS 3140/5140. Database Systems — 3 hrs.

Storage of, and access to, physical databases; data models, query languages, transaction processing, and recovery techniques; object-oriented and distributed database systems; and database design. Prerequisite(s): CS 1520; CS 1800; junior standing. Prerequisite(s) for Physics: Computer Science and Data Science emphasis majors and Data Science minors: CS 2150; junior standing. (Fall)

CS 3150/5150. Information Storage and Retrieval — 3 hrs.

Natural language processing; analysis of textual material by statistical, syntactic, and logical methods; retrieval systems models, dictionary construction, query processing, file structures, content analysis; automatic retrieval systems and question-answering systems; and evaluation of retrieval effectiveness. Prerequisite(s): CS 1520; CS 1800; junior standing. (Spring)

CS 3179. Cooperative Education — 1-4 hrs.

Application of classroom learning to field experience. Credit may not be applied to major or minor. Offered on credit/no credit basis only. May be retaken for up to six credits total. (Fall and Spring)

CS 3430/5430. Operating Systems — 3 hrs.

History and evolution of operating systems; process and processor management; primary and auxiliary storage management; performance evaluation, security, and distributed systems issues; and case studies of modern operating systems. Prerequisite(s): CS 1410; CS 1520; CS 1800; junior standing. (Spring)

CS 3510. Topics in Programming — 1 hr.

Quick study of a specified programming language or environment for those with considerable programming experience. Language syntax and semantics, common problems solved using it, and best practices. May be repeated with different topics. Prerequisite(s): CS 1520; CS 1800. (Variable)

CS 3530. Design and Analysis of Algorithms — 3 hrs.

Algorithm design techniques such as dynamic programming and greedy algorithms; complexity analysis of algorithms; efficient algorithms for classical problems; intractable problems and techniques for addressing them; and algorithms for parallel machines. Prerequisite(s): CS 1520; CS 1800. (Fall)

CS 3540. Programming Languages and Paradigms — 3 hrs.

Organization of programming languages; language design issues including syntax, data types, sequence control, and storage management; comparison of language features from object-oriented, imperative, functional, and logical paradigms. Prerequisite(s): CS 1520; CS 1800; junior standing. (Spring)

CS 3610/5610. Artificial Intelligence — 3 hrs.

Models of intelligent behavior and problem solving; knowledge representation and search methods; learning; topics such as knowledge-based systems, language understanding, and vision. Prerequisite(s): CS 1520; CS 1800; junior standing. (Fall)

CS 3650/5650. Computational Biology — 3 hrs.

Applications of computer science techniques to biological problems; introduction to computational DNA and protein sequence analysis; dynamic programming; optimal alignment algorithms; DNA sequencing and fragment assembly; gene expression arrays; clustering algorithms; evolutionary trees; multiple alignments; hidden Markov models. Prerequisite(s): CS 1520 and CS 1800; junior standing. (Spring)

CS 3730/5730. Project Management — 1 hr.

Examination of problems of organizing, controlling, managing, and evaluating a software project; software metrics and human input. Prerequisite(s): CS 2530; junior standing. (Fall and Spring)

CS 3750/5750. Software Verification and Validation — 3 hrs.

Taxonomy of software defects and approaches to identifying them, including black box testing, functional testing, control flow testing, data flow testing, software inspection. Introduction to use of static analysis in development of high integrity software. Prerequisite(s): CS 1520; CS 1800; junior standing. (Spring)

CS 3810/5810. Theory of Computation — 3 hrs.

Topics include regular languages and grammars; finite state automata; context-free languages and grammars; language recognition and parsing; and Turing computability and undecidability. Prerequisite(s): CS 1800; junior standing. (Spring)

CS 4400/5400. System Administration — 3 hrs.

Major concepts and mechanisms associated with computer system administration. Focus on issues surrounding user management, the configuration of services, and the coordination of distributed resources. Prerequisite(s): CS 2470; junior standing. (Spring)

CS 4410/5410. System Security — 3 hrs.

Topics include the need for security services, data integrity, network intrusion and monitoring, configuration of secure services, root kits, and buffer overflow techniques and remedies. Additional topics include enterprise-wide monitoring, honeypots, and recognizing trends in a networked environment. Prerequisite(s): CS 2470; junior standing. Prerequisite(s) or corequisite(s): CS 3730/5730. (Spring)

CS 4420. Applied Systems Forensics — 3 hrs.

Essentials of applied computer system forensics; evidence preserving techniques; reconstruction of storage volumes and deleted volumes and files; identification of evidence in computer memory; encryption; log analysis; generation of forensic reports. Topics are covered in the context of incidence response to compromised systems. Prerequisite(s): CS 1410; CS 1520; CS 1800; CS 3430/5430. (Fall)

CS 4550/5550. Translation of Programming Languages — 3 hrs.

Introduction to analysis of programming languages and construction of translators. Prerequisite(s): CS 2530 and one of the following: CS 3530, CS 3540, CS 3810/5810; junior standing. Prerequisite(s) or corequisite(s): CS 3730/5730. (Fall)

CS 4620/5620. Intelligent Systems — 3 hrs.

Design and implementation of programs that apply artificial intelligence techniques to problems such as design, diagnosis, and distributed problem solving. Emphasis on team design and development of large systems. Prerequisite(s): CS 2530; CS 3610/5610 or equivalent; junior standing. Prerequisite(s) or corequisite(s): CS 3730/5730. (Spring)

CS 4740/5740. Real-Time Embedded Systems — 3 hrs.

Specification, design, and implementation principles and techniques for real-time embedded systems. Topics include programming languages and paradigms, reliability and fault tolerance, concurrent programming, scheduling, and the interaction between hardware and software. Student teams will complete a significant real-time embedded software project. Prerequisite(s): CS 2530; CS 2720; junior standing. Prerequisite(s) or corequisite(s): CS 3730/5730. (Fall)

CS 4800. Undergraduate Research in Computer Science — 1-3 hrs.

May be repeated for maximum of 6 hours. (Fall and Spring)

CS 4880/5880. Topics in Computer Science — 3 hrs.

Topics of general interest from any area of computer science, including systems, software, or theory. Can be counted in any specialization area, with department approval for individual topics. Prerequisite(s): CS 1520; CS 1800; junior standing. (Variable)

CS 6140. Database Management Systems — 3 hrs.

Database system concepts, physical data organization, the network model and the DBTG Proposal, the hierarchical model, the relational model, relational query languages, design theory of relational databases, query optimization, and normalization. Prerequisite(s): consent of instructor. (Variable)

Course Descriptions

CS 6400. Computer Systems — 3 hrs.

Survey of issues in computer system analysis and design. Emphasis on relationship between system hardware and software including tools and environments for software development on parallel and distributed computer systems. Prerequisite(s): for Computer Science majors: CS 2420 or CS 3430/5430. Prerequisite(s) for non-Computer Science majors: proficiency in a high-level programming language; consent of instructor. (Variable)

CS 6500. Algorithms — 3 hrs.

Survey of analysis and design of algorithms. Topics include algorithm design techniques, efficient algorithms for classical problems, and intractable problems and techniques for solving them. Prerequisite(s): CS 3530. (Variable)

CS 6800. Theoretical Foundations of Computing — 3 hrs.

Survey of theoretical models of computation and basic theory of computability. Topics include Turing machines, undecidability, NP-completeness, and computational complexity. Consideration of applications of theory to contemporary problems in computing. Prerequisite(s): CS 3810/5810. (Variable)

CS ED: Computer Science Education

Courses

CS ED 1310. Programming Environments for Elementary Education — 3 hrs.

Introduction to computational thinking and computer programming. Taught as a survey of programming environments used by elementary education teachers. Topics include structure of programming and the study of several programming environments used by students at a variety of age/ability levels. (Spring)

CS ED 1320. Fundamentals of Programming — 3 hrs.

Introduction to computer programming through a survey of programming environments used by teachers. Topics include structure of programming, study of several programming environments used by students at a variety of age/ability levels, and end-user programming for teachers. (Fall)

CS ED 2310. Foundational Concepts in Computer Science — 3 hrs.

Examine the breadth of the field of computer science beyond the programming of the computers. Topics include data storage and manipulation, computer organization, operating systems, networking and the Internet, software engineering, databases, and artificial intelligence. Give potential teachers a general introduction to commonly taught sub-disciplines in computer science so that they can have informed discussions with students before they study a topic more deeply. (Spring)

CS ED 3310/5310. Teaching and Learning Programming — 3 hrs.

Students will enhance their skill and understanding of programming while examining common programming problems, examples of bad/good code, and common misconceptions/difficulties. Students will examine common paradigms for teaching programming. Students will study broader challenges to learning such as broadening participation, understanding and avoiding bias, and best practices for classroom engagement. Prerequisite(s): CS ED 1320 or equivalent; junior standing. (Spring)

CS ED 3320/5320. Data Structures and Algorithms — 3 hrs.

Introduction to the structure and application of common data structures used in computer science and the algorithms used with/for these structures. Includes an ongoing discussion on algorithm analysis. Also includes significant elements of algorithms, program design, techniques for data storage and retrieval, and data beyond a local text file. Prerequisite(s): CS ED 1320 or equivalent; CS ED 3310/5310; junior standing. (Fall)

CS ED 4330/5330. Methods for Teaching Computer Science — 3 hrs.

Teaching approaches, instructional and assessment strategies, curricular and laboratory materials, and issues in secondary computer science. Students will develop a project, either in a classroom or during an after-school or similar experience that seeks to teach a section of the CS standards. Projects should stress inclusivity and appeal to a diverse group of students. Data will be collected about projects including demographics of participants, aggregate achievement, and analysis of student work samples. Prerequisite(s): CS ED 1320 or equivalent; CS ED 2310; CS ED 3310/5310; junior standing. (Fall)

CSD: Communication Sciences and Disorders

Courses

CSD 1000. Understanding Communication Disorders — 3 hrs.

Provides a general understanding of normal and disordered speech, language, and hearing in adults and children. Covers normal development of communication behavior, the nature of communication disorders, and how speech-language pathology and audiology interact with allied fields (e.g., education, medicine, psychology, and special education). Incorporates the influence of cultural and linguistic diversity. (Fall)

CSD 3100. Language Acquisition in Children: Birth to 5 Years — 3 hrs.

Study of the acquisition of phonological, semantic, syntactic, and pragmatic systems as these interface with brain maturation and motor, cognitive, and social development. Biological and social/interactional factors examined from variety of perspectives (e.g. cultural and linguistic diversity), stressing "applied" orientation. (Spring)

CSD 3120. Phonetics in Communicative Disorders — 3 hrs.

Proficiency in use of International Phonetic Alphabet with emphasis on physiological and linguistic aspects of speech sound production. (Spring)

CSD 3130/5130. Neuroscience and the Study of Communication Disorders — 3 hrs.

Study of key neuroscience principles with an emphasis on neuroanatomic and neurophysiologic bases of communication and swallowing. Prerequisite(s): CSD 3135; junior standing; minimum 3.00 GPA or consent of department head. Department consent required to take at 5000-level. (Fall)

CSD 3135. Anatomy and Physiology of Speaking Mechanism — 3 hrs.

Introduction to functional anatomy and physiology in the speech mechanism. (Spring)

CSD 3140/5140. Introduction to Neurogenic Disorders — 3 hrs.

Introduction to the study of how various neurogenic disorders affect communication. Prerequisite(s): CSD 3135; CSD 3130/5130;

junior standing; minimum 3.00 GPA or consent of department head. Department consent required to take at 5000-level. (Spring)

CSD 3150. Developmental Neurology in Communication Sciences and Disorders — 3 hrs.

Provides undergraduate students with experience on neurological based communication disorders in children. (Spring)

CSD 3200/5200. Language of School-aged Children — 3 hrs.

Language development of older children. Assessment and intervention principles and techniques for children of school age with language disorders. Includes issues in cultural and linguistic diversity, literacy and collaboration with classroom teachers. Prerequisite(s): CSD 3100; junior standing; minimum 3.00 GPA or consent of department head. Department consent required to take at 5000-level. (Fall)

CSD 3220. Disorders of Speech Sounds — 3 hrs.

Study of disordered phonological/articulatory systems; linguistic and cultural variation; exploration of assessment and intervention principles and practices. Prerequisite(s): CSD 3120 or consent of instructor; minimum 3.00 GPA or consent of department head. (Fall)

CSD 3250/5250. Speech Science — 3 hrs.

Study of physiological, aerodynamic, and acoustic techniques used in research, diagnosis, and treatment in communication sciences and disorders. Prerequisite(s): CSD 3260/5260; junior standing; minimum 3.00 GPA or consent of department head. Department consent required to take at 5000-level. (Spring)

CSD 3260/5260. Hearing Science — 3 hrs.

Physical concepts and acoustics relating to propagation and measurement of sound. Anatomy and physiology of the ear including neurophysiology of the peripheral and central auditory system, and psychoacoustics. Prerequisite(s): junior standing; minimum 3.00 GPA or consent of department head. Department consent required to take at 5000-level. (Fall)

CSD 3270/5270. Introduction to Audiology — 3 hrs.

Nature and measurement of hearing; types of hearing loss; audiometric measurement including procedures, and specialized tests. Prerequisite(s): CSD 3260/5260; junior standing; minimum 3.00 GPA or consent of department head. Department consent required to take at 5000-level. (Spring)

CSD 3650. Clinical Processes — 2 hrs.

Introduction to role of speech-language pathologists and audiologists as clinicians; emphasis on observation in the UNI Roy Eblen Speech and Hearing Clinic. Prerequisite(s): Communication Disorders majors only; CSD 1000; CSD 3100; minimum 3.00 GPA; junior standing or consent of instructor. (Fall and Spring)

CSD 3700/5700. Communication Disorders and Differences Across the Lifespan — 3 hrs.

Study of communication patterns, assessment accommodations, intervention, transition, and linguistic and cultural diversity for selected clinical categories across the lifespan. Prerequisite(s): junior standing; minimum 3.00 GPA or consent of department head. Department consent required to take at 5000-level. (Spring)

CSD 3900/5900. Aural Rehabilitation — 3 hrs.

Principles and procedures for assessment and rehabilitation of communication deficits of hearing-impaired persons - emphasizing amplification systems, auditory training, speech-reading, and total communication for the hard-of-hearing and deaf. Introduction to counseling for individuals and families experiencing hearing loss and awareness of diverse cultural views of hearing loss (Deaf culture). Prerequisite(s): CSD 3260/5260; CSD 3270/5270; junior standing;

minimum 3.00 GPA or consent of department head. Department consent required to take at 5000-level. (Fall)

CSD 4000/5000. Honors in Communicative Disorders — 2-3 hrs.

Development and implementation of an approved research project in an area of communicative disorders. Prerequisite(s): junior standing; consent of instructor. Department consent required to take at 5000-level. (Variable)

CSD 4100/5100. Augmentative and Alternative Communication — 3 hrs.

Study of theoretical and practical aspects of planning augmentative and alternative communication for individuals who have complex communication needs. The influence and importance of considerations for individual linguistic and cultural differences will also be discussed. Prerequisite(s): junior standing. Department consent required to take at 5000-level. (Fall and Spring)

CSD 4210/5210. Current Problems in Speech-Language Pathology and Audiology — 1-2 hrs.

Major issues confronting clinicians, researchers, and the profession. Topics to be determined by instructors. May be repeated as section topics change. Prerequisite(s): senior standing or consent of instructor. Department consent required to take at 5000-level. (Variable)

CSD 4500. Clinical Practice — 1 hr.

Clinical experience evaluation and remediation of language and articulation disorders as well as experience in screening of hearing. 1 hr. is required, may be repeated for total of 2 hours. Prerequisite(s): Communication Disorders majors only; CSD 3100; CSD 3120; CSD 3135; CSD 3200/5200; CSD 3220; CSD 3650; minimum 3.00 GPA; senior standing or consent of instructor. (Fall and Spring)

CSD 6000. Research Methods in Speech-Language Pathology and Audiology — 2 hrs.

Introduction to methodology, various designs, and report preparation for research. Prerequisite(s): admitted to graduate program in Speech-Language Pathology or department consent. (Fall and Spring)

CSD 6230. Structural Disorders - Craniofacial and Head & Neck Cancer — 3 hrs.

Understanding of the etiology, assessment, and treatment of head and neck cancer and craniofacial disorders; focus on alaryngeal speech options, oral cancer, swallowing following a total laryngectomy, and respiration, as well as observation and analysis of characteristics of cleft palate speech and intervention techniques. Prerequisite(s): CSD 3135 or consent of instructor; admitted to graduate program in speech-language pathology or department consent. (Variable)

CSD 6285. Individual Readings — 1-2 hrs.

Project must be approved before beginning of semester in which work is to be done. May be repeated. Prerequisite(s): department consent. (Variable)

CSD 6289. Seminar in Speech-Language Pathology — 2 hrs.

Seminars in special topics to be announced in the Schedule of Classes. No limit on number of times repeated as long as topic is different. Prerequisite(s): consent of department; admitted to graduate program in Speech-Language Pathology or department consent. (Fall, Spring, Summer)

CSD 6290. SLP Practicum in Education Setting — 4-10 hrs.

Advanced clinical experience in educational settings such as education agencies, preschools, and schools. Minimum 8-week, full-time internship when taken in addition to CSD 6580 Internship in Clinical Settings; minimum 16-week, full-time without CSD 6580. May be repeated for a maximum of 10 hours. Prerequisite(s): admitted to

Course Descriptions

graduate program in Speech-Language Pathology or department consent. (Fall, Spring, Summer)

CSD 6299. Research — 1-6 hrs.

May be repeated for a maximum of 2 hours (non-thesis) or 6 hours (thesis). Prerequisite(s): consent of instructor and department head. (Variable)

CSD 6300. Treatment of Child Language Disorders — 3 hrs.

Principles and approaches for treating children with language disorders. Consider how cultural and linguistic differences influence treatment planning and delivery. Requires active participation for demonstrations and presentations. Prerequisite(s): admitted to graduate program in Speech-Language Pathology or department consent. (Spring)

CSD 6400. Disorders of Voice — 3 hrs.

In-depth study of the etiology, diagnosis, and management of voice disorders. Prerequisite(s): admitted to graduate program in Speech-Language Pathology or department consent. (Fall)

CSD 6450. Motor Speech Disorders — 2 hrs.

Neurophysiological bases, differential diagnosis, and clinical management of motor speech disorders in adults including diverse populations. Prerequisite(s): admitted to graduate program in Speech-Language Pathology or department consent. (Fall)

CSD 6500. Advanced Clinical Practice: Full Semester — 2 hrs.

Clinical experience in diagnosis and remediation of speech, language, and/or hearing problems at an advanced level of preparation and responsibility. Must be taken for minimum of three academic terms in the graduate program. Prerequisite(s): CSD 4500 or consent of instructor; individuals must be accepted graduate students in the Speech-Language Pathology major. (Fall and Spring)

CSD 6510. Advanced Clinical Practice: 8 Week — 1 hr.

Clinical experience in diagnosis and remediation of speech, language, and/or hearing problems at an advanced level of preparation and responsibility. Typically taken for one eight week summer session during the graduate program. Prerequisite(s): CSD 4500 or consent of instructor; individuals must be accepted graduate students in the Speech-Language Pathology major. (Summer)

CSD 6560. Diagnostics in Communication Disorders — 2 hrs.

Theoretical and practical aspects of the evaluation process. Prerequisite(s): admitted to graduate program in Speech-Language Pathology or department consent. Corequisite(s): CSD 6500 or consent of instructor. (Variable)

CSD 6580. Internship in Clinical Settings — 4-14 hrs.

Advanced clinical experience in settings such as clinics, hospitals, and rehabilitation/health centers serving populations across the lifespan. Minimum 8-week, full-time internship when taken in addition to CSD 6290 SLP Practicum in Education Setting; minimum 16-week, full-time without CSD 6290. May be repeated for maximum of 14 hours. Prerequisite(s): admitted to graduate program in Speech-Language Pathology or department consent. (Fall, Spring, Summer)

CSD 6600. Dysphagia — 3 hrs.

Introductory course on the diagnosis and remediation of dysphagia in adults, with select considerations for the management of pediatric feeding and swallowing disorders. Prerequisite(s): admitted to graduate program in Speech-Language Pathology or department consent. (Fall and Spring)

CSD 6650. Aphasia and Related Disorders — 3 hrs.

Diagnosis and remediation of aphasia with adults, including those from diverse populations. Prerequisite(s): admitted to graduate

program in Speech-Language Pathology or department consent. (Spring)

CSD 6660. Advanced Diagnostics in Communication Disorders — 2 hrs.

Advanced techniques in communication disorders assessment (interviewing; report-writing; clinical application.); must be taken for at least one fall or spring semester. Prerequisite(s): CSD 6560; admitted to graduate program in Speech-Language Pathology or department consent. Corequisite(s): CSD 6500. (Fall and Spring)

CSD 6700. Clinical Phonology — 3 hrs.

Review of current literature on phonological disorders. Includes issues and procedures in the assessment and management of such disorders. Prerequisite(s): CSD 3220 or consent of instructor; admitted to graduate program in Speech-Language Pathology or department consent. (Fall and Spring)

CSD 6800. Stuttering and Cluttering — 2 hrs.

Study of the nature, assessment, and intervention of stuttering and cluttering across the lifespan. Prerequisite(s): admitted to graduate program in Speech-Language Pathology or department consent. (Fall)

CTE: Career Technical Education

Courses

CTE 4110/5110. Methods for Career and Technical Education — 2 hrs.

This online course is designed for those wanting to learn more about teaching a Career and Technical Education in a K-12 setting. The course will include innovative teaching strategies and novel ways to keep students engaged in the classroom. You will become familiar with planning and assessing CTE programs as well as promoting your program within your school. Prerequisite(s): junior standing. (Fall, Spring, Summer)

CTE 4120/5120. Assessment and Evaluation in Career and Technical Education — 2 hrs.

Assessments and Techniques for evaluating student learning and programs in career and technical education. Prerequisite(s): junior standing. (Fall, Spring, Summer)

CTE 4130/5130. Curriculum Design for Career and Technical Education — 2 hrs.

Designing curriculum that aligns with a post-secondary course of study, academic standards, and local program of study needs and constraints. Emphasis on authentic learning and programs of study. Prerequisite(s): junior standing. (Fall, Spring, Summer)

CTE 4140/5140. Foundations of Career and Technical Education — 2 hrs.

Foundations of Career and Technical Education provides a historical perspective of how career and technical education has evolved in society and education. This course looks at the different influences and factors that have contributed to CTE and how CTE has changed throughout the years. Topics include federal and state legislative initiatives, CTE organizations, and the impact of educational reform on Career and Technical Education and workforce development. Prerequisite(s): junior standing. (Fall, Spring, Summer)

CTE 4145/5145. The History of Career and Technical Education: Building a Solid Foundation — 1 hr.

The History of Career and Technical Education takes learners on an insightful exploration of the evolution and development of career

and technical education (CTE) throughout history. From its origins to its modern-day significance, this course provides a comprehensive overview of the key milestones, influential figures, and societal shifts that have shaped CTE into what it is today. By delving into the past, students gain a deeper appreciation for the foundations and principles that underpin contemporary CTE practices. Prerequisite(s): junior standing. (Fall, Spring, Summer)

CTE 4150/5150. Implementation of Work-based Learning Internships — 2 hrs.

Students learn the basics of planning, organizing, and implementing internships. Primary areas of study include how to implement training plans and agreements; develop liaison relationships with the community; evaluate student performance; provide relevant classroom instruction; involve parents and guardians; and counsel students for job application, work performance and transition into work/post-secondary training. Federal and Iowa state employment laws as well as other primary resources to assist in the coordination process will be identified and utilized in developing a customized, local plan for implementing internships. This course meets the coordination of cooperative programs requirement for the Multi-occupations (MOC) and Work Experience Coordinator endorsements. Prerequisite(s): junior standing. (Fall, Spring, Summer)

CTE 4155/5155. Supervision of Work-Based Learning Internships — 1 hr.

Students learn the basics of planning, organizing, and implementing internships to address two goal areas: specific occupational skill development and standard work-behavior development. Primary areas of study include the implementation of training plans and agreements, development of liaison relationships with the community, evaluation of student performance, and review of federal and state employment laws. This course fulfills the requirement for the work-based learning supervisor authorization in Iowa. Prerequisite(s): junior standing. (Fall, Spring, Summer)

EARTHSCI: Earth Science

Courses

EARTHSCI 1100. Astronomy — 3 hrs.

Introduction to the Universe, solar system, stars, and galaxies, including apparent motions of bodies in the sky; development of astronomy and its impact on humankind. Student Learning Outcomes include Critical Thinking and Scientific Reasoning. Discussion, 3 periods. (Fall, Spring, Summer)

EARTHSCI 1110. Astronomy Laboratory — 1 hr.

Exploration of astronomical phenomena through the use of telescopes, charts, computer simulations, and other laboratory equipment. Students will derive the characteristics of astronomical objects, and examine their behavior. Student Learning Outcomes include Critical Thinking and Scientific Reasoning. Lab, 2 periods. Prerequisite(s) or corequisite(s): EARTHSCI 1100. (Fall and Spring)

EARTHSCI 1200. Elements of Weather — 3 hrs.

Meteorological elements and their applications to environment; interpretation of weather maps and weather data; forecasting and briefing on daily weather. Student Learning Outcomes include Critical Thinking and Scientific Reasoning. Discussion, 3 periods. No credit for those who have completed EARTHSCI 3210/5210. (Fall, Spring, Summer)

EARTHSCI 1210. Elements of Weather Laboratory — 1 hr.

Fundamentals of meteorological observation, use of basic meteorological instruments, and applications of maps and charts to understanding forecasts. Student Learning Outcomes include Critical Thinking and Scientific Reasoning. Lab, 2 periods. Prerequisite(s) or corequisite(s): EARTHSCI 1200. (Fall, Spring, Summer)

EARTHSCI 1300. Introduction to Geology — 4 hrs.

Introduction to the physical environment, emphasizing materials of the Earth and processes that lead to changes within and on the Earth. Lab emphasis includes rocks and minerals, geologic processes, and landscape development. Student Learning Outcomes include Critical Thinking and Scientific Reasoning. Discussion, 3 periods; lab, 2 periods. (Fall and Spring)

EARTHSCI 1320. Earth History — 4 hrs.

Methods and principles used in deciphering the 4.6 billion-year history of our planet; discussion of history and evolution of life on Earth and examination of major physical and plate-tectonic events through geologic time. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): EARTHSCI 1300 or equivalent. (Fall and Spring)

EARTHSCI 1400. Introduction to Environmental Earth Science — 4 hrs.

Introduction to the physical, chemical, and cultural components of the natural world around us. The primary focus is on global-scale understanding of environmental issues using a scientific approach. Student Learning Outcomes include Critical Thinking and Scientific Reasoning. Discussion, 3 periods; lab, 2 periods. (Variable)

EARTHSCI 1410. Field Studies in _____ — 1-4 hrs.

Field studies in various areas of Earth and Environmental Sciences: geology, oceanography, paleontology, meteorology, hydrology, environmental science, and astronomy. To be preceded or followed by seminars on proposed study area. Student collection of data in the field and reports on their findings. May be repeated in different study area. Only 4 hours may be applied to the Earth Science minor. Prerequisite(s): consent of instructor. (Variable)

EARTHSCI 3110/5110. Observational Astronomy — 2 hrs.

Use of astronomical instruments (telescopes, cameras, and digital cameras), along with observing aids (charts, catalogs, and ephemerides), for collection, analysis, and interpretation of astronomical data. Discussion, 1 period; lab, 2 periods. Prerequisite(s): EARTHSCI 1100 (4 semester hours) or equivalent; junior standing. (Fall)

EARTHSCI 3120/5120. Planets — 3 hrs.

Examination of the Sun's family of planets, satellites, asteroids, and comets, including formation and evolution; processes currently at work in the Solar System; search for exoplanets. Discussion, 3 periods. Prerequisite(s): junior standing. (Fall)

EARTHSCI 3135. Stars, Galaxies and the Universe — 3 hrs.

Study of aspects of the Universe beyond the solar system. Topics include the structure and evolution of stars, red giants, white dwarfs, supernovae, pulsars, black holes, the Milky Way galaxy, active galaxies, extragalactic structures, quasars, supermassive black holes, and the origin, evolution and structure of the Universe. Discussion, 3 periods. Prerequisite(s): EARTHSCI 1100 or equivalent. (Odd Springs)

EARTHSCI 3150. Naked-eye Astronomy — 2 hrs.

Exploration of the changing sky with examples of how different cultures have reacted to and used these changes for time keeping and navigation. Discussion, 2 periods. (Spring)

Course Descriptions

EARTHSCI 3210/5210. Meteorology — 4 hrs.

Weather observations; the atmospheric boundary layer; heating and cooling of the atmosphere; instability and thunderstorm formation; winds and weather systems; air pollution and weather. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): EARTHSCI 1200; junior standing. (Spring)

EARTHSCI 3220/5220. Weather Analysis and Forecasting — 3 hrs.

Fundamentals of weather forecasting; practical application of numerical prediction; analysis of surface and upper air weather observations; the polar front cyclone; conceptual models of atmospheric ascent; thunderstorms; ensemble forecasting; daily weather forecasting exercise. Discussion, 3 periods. Prerequisite(s): EARTHSCI 1200 or instructor's permission; junior standing. (Variable)

EARTHSCI 3230/5230. Air Quality — 4 hrs.

Atmospheric pollution and pollutants; effect of air pollution on the atmosphere, health and welfare; regulation and public policy; atmospheric dispersion of air pollution; air pollution control; indoor air quality. Discussion, 4 periods. Prerequisite(s): EARTHSCI 1200; junior standing. (Fall)

EARTHSCI 3240/5240. Air Quality Modeling — 4 hrs.

Theory and application of air quality modeling; simulation of ambient concentrations of air pollution; dispersion modeling; photochemical modeling. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): EARTHSCI 1200; junior standing. (Spring)

EARTHSCI 3250/5250. Measurement and Analysis of Air Quality — 4 hrs.

Atmospheric chemistry; techniques commonly used in air quality measurement; collection and analysis of gases and particulates; remote sensing of air pollution; indoor air quality; determining compliance with air quality regulations. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): EARTHSCI 1200; junior standing. (Fall)

EARTHSCI 3322. Earth Materials — 4 hrs.

Investigations of the composition, properties, classification, identification, and origin of common Earth materials including the major rock-forming minerals as well as igneous, sedimentary, and metamorphic rocks. Discussion 3 periods, lab 2 periods. Prerequisite(s): EARTHSCI 1300. (Even Springs)

EARTHSCI 3323. Geochemistry of the Land — 4 hrs.

Distribution of elements in and on the Earth. Explores the chemical processes governing these distributions. Emphasizes the use of chemical signatures and patterns to address geologic problems from mining to sustainable environments. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): EARTHSCI 1300 or EARTHSCI 1400; CHEM 1110. (Odd Springs)

EARTHSCI 3325/5325. Sedimentary Geology — 4 hrs.

Investigation of layered rocks, sedimentary processes, sedimentation, environments of deposition, correlation procedures, and classification and description of common sedimentary rocks. Field trips. Discussion, 3 periods; lab, 2 periods. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): EARTHSCI 1300 or EARTHSCI 1320. (Odd Falls)

EARTHSCI 3327/5327. Paleoclimatology — 3 hrs.

Introduction to paleoclimatology emphasizing methods and principles used to decipher paleoclimate events in the geologic past. This course focuses on climate forcing, the response time of Earth's climate system, feedbacks within the climate system, and the role of carbon in this system over million-year time scales. In particular, the role

of stable and radiogenic isotope proxies in determining paleoclimate events is emphasized. Discussion, 3 periods. Prerequisite(s): EARTHSCI 1300 or GEOG 1210; EARTHSCI 1320 or permission of the instructor; junior standing. (Even Springs)

EARTHSCI 3330/5330. Geomorphology — 4 hrs.

Classification, description, origin, and development of landforms and their relationship to underlying structure and lithology; emphasis on geomorphic processes. Includes fluvial, glacial, periglacial, eolian, karstic, weathering, and mass-movement processes and features. Discussion, 3 periods; labs and field trips, 2 periods. Prerequisite(s): EARTHSCI 1300 or GEOG 1210; junior standing. (Even Falls)

EARTHSCI 3336. Natural Resources and Civilizations — 3 hrs.

Introduction to the interactions and relationships between humans and natural resources: stone, clay, soil, water, plants. Geo archaeological findings from around the world will be investigated. Student Learning Outcomes include Values and Ethics. Discussion, 3 periods. (Variable)

EARTHSCI 3340/5340. Oceanography — 3 hrs.

Basic principles of geological, biological, chemical, and physical oceanography; emphasis on marine geology. Physiographic features of ocean basins, coastal features and processes, oceanic sediments, biological and geological resources, and ocean management. Discussion, 3 periods. Prerequisite(s): EARTHSCI 1300 or equivalent; junior standing. (Odd Springs)

EARTHSCI 3345/5345. Environmental Geology — 3 hrs.

Recognition and remediation of natural and human induced geologic hazards. Analysis of issues or problems of local concern where possible. Discussion, 2 periods; lab and field trips, 2 periods. Prerequisite(s): EARTHSCI 1300 or equivalent; junior standing. (Fall)

EARTHSCI 3350/5350. Environmental Hydrology — 3 hrs.

Introduction to environmental aspects of watershed hydrology. Surface water hydrologic processes, pollution of surface water resources, surface water - ground water interactions, unsaturated zone hydrologic processes, movement of chemicals in soils, site characterization, and soil remediation techniques. Discussion, 3 periods. Prerequisite(s): EARTHSCI 1300; junior standing. (Even Springs)

EARTHSCI 3355/5355. Hydrogeology — 3 hrs.

Principles and applications of hydrogeology including study of runoff, stream flow, soil moisture, and ground water flow. Examination and analysis of ground water flow to wells, regional ground water flow, geology of ground water occurrence, water chemistry of ground water, water quality and ground water contamination, ground water development and management, field methods, and ground water models. Discussion, 3 periods. Prerequisite(s): EARTHSCI 1300; junior standing. (Odd Springs)

EARTHSCI 3360/5360. Field and Laboratory Methods in Hydrology — 3 hrs.

Methods of data collection, laboratory procedures and error analysis associated with water in the geo-hydrologic systems. Develop skills in using hydrologic equipment, including ion chromatograph, spectrophotometers, water monitoring sondes, and well purging systems. Field trips; Discussion/lab, 4 periods. Prerequisite(s): junior standing. (Odd Falls)

EARTHSCI 3365/5365. Hydrology Seminar — 2 hrs.

Reviews of current literature to understand the role of hydrologic sciences in global water issues; discussions of new challenges in the field of hydrology in an era of changing global climate. Oral report on research topics. Discussions, 2 periods. Prerequisite(s): junior standing. (Even Falls)

EARTHSCI 3367. Global Water Environment — 3 hrs.

Investigating natural water as a driver of human-environment relationships. The course provides a holistic view of global water scarcity and societal interactions with this important commodity. The course takes a multidisciplinary approach to increase people's awareness of social, cultural, and political crises that are linked to water inequality and injustice across the globe. Discussion includes new challenges in finding fresh water and our civic roles in defining a sustainable water future. Student Learning Outcomes include Values and Ethics. (Spring and Summer)

EARTHSCI 3370. Geologic Field Methods — 4 hrs.

Students will be introduced to geological field safety, planning, and work (e.g. mapping, stratigraphy, rock, sediment, and descriptions etc.) Students will collect and record data using common geologic field methods and tools; synthesize geologic data collected in the field by producing geologic maps and cross-sections; and finally develop a justifiable geologic history based on multiple lines of evidence. Prerequisite(s): EARTHSCI 1300. (Odd Falls)

EARTHSCI 3400/5400. Topics in Earth and Environmental Science — 1-3 hrs.

Offered both on- and off-campus in flexible format. May include plate tectonics, geomagnetism, naked-eye astronomy, telescope usage, weather forecasting, environmental issues, or other topics of current interest. Topics listed in Schedule of Classes. May be repeated on different topic. Application to major requires consent of department head. Prerequisite(s): junior standing. (Variable)

EARTHSCI 3410/5410. Field Studies in _____ — 1-4 hrs.

Field studies in various areas of Earth and Environmental Sciences: geology, oceanography, paleontology, meteorology, hydrology, environmental science, and astronomy. To be followed or preceded by seminars on the proposed study area. Student collection of data in the field and reports on their findings. May be repeated in different study area. Only 4 hours may be applied to the Earth Science minor. Prerequisite(s) or corequisite(s): EARTHSCI 3000/4000-level course appropriate to the specific field studies and approved by department head; junior standing; consent of instructor. (Variable)

EARTHSCI 3420/5420. Readings in Earth and Environmental Science — 1-3 hrs.

Maximum of 3 hours may be applied to earth science or environmental science majors or minors. Prerequisite(s): junior standing; consent of instructor and department head. (Variable)

EARTHSCI 3430. Internship — 1-6 hrs.

Supervised work experience in approved work situation. Offered on credit/no credit basis only. Prerequisite(s): consent of department head. (Fall, Spring, Summer)

EARTHSCI 4150/5150. Astrophysics — 3 hrs.

Examination of astrophysical concepts and principles for a range of topics, including processes that influence stars, galaxies and the universe. Prerequisite(s): PHYSICS 1701, PHYSICS 1702, MATH 1420, MATH 1421, Junior Standing. (Even Springs)

EARTHSCI 4400. Undergraduate Research in Earth and Environmental Science — 1-3 hrs.

Research activities under direct supervision of Earth and Environmental Science faculty member. Credit to be determined at registration. May be repeated for maximum of 6 hours. Prerequisite(s): consent of instructor and department head. (Fall, Spring, Summer)

EARTHSCI 6297. Practicum. (Variable)**EARTHSCI 6299. Research.**

Prerequisite(s): consent of department. (Variable)

ECON: Economics

Courses

ECON 1001. Economics of Social Issues — 3 hrs.

Explains basic economic theories and establishes connections between these theories and current social issues. Discusses policies that have been constructed or proposed to address these issues, including but not limited to labor market discrimination, immigration, and environmental externalities, through both conservative and liberal perspectives. Analyzes the problems of income inequality and poverty through the multiple political philosophies of utilitarianism, liberalism, and libertarianism. Students will reflect on their personal values in the context of contemporary social issues. Prerequisite(s): freshman or sophomore standing, or consent of the Department Head. (Fall and Spring)

ECON 1011. Statistics for Business Analytics — 3 hrs.

Application and interpretation of probability and statistics as applied to business problems. Descriptive statistics, hypothesis testing, linear regression, and correlation. May not be used toward Economics major or minor elective credit or the Social Science major or minor. Prerequisite(s): STAT 1772 or equivalent. (Fall and Spring)

ECON 1031. Introduction to Business Economics — 3 hrs.

A survey of how markets and the economy as a whole function, with emphasis on decision making by businesses and economic literacy. Topics include markets for goods, services, and inputs; cost of production; and the measurements and determinants of national income, unemployment, and inflation. No credit for students who have credit or are concurrently enrolled in ECON 1041 or ECON 1051. May not be used for credit on Economics major or minor. (Fall and Spring)

ECON 1041. Principles of Macroeconomics — 3 hrs.

Introduction to the economizing problem and economic institutions. National income determination, monetary and fiscal policy, and global economic issues. (Fall and Spring)

ECON 1051. Principles of Microeconomics — 3 hrs.

Study of how consumers make decisions, firms maximize profits, and various market structures affect prices and output. Topics include supply and demand, elasticity, consumer and producer welfare, firm production and costs, and market structures. Prerequisite(s): C- or better in ECON 1041 or consent of department head. (Fall and Spring)

ECON 2090. Decision Analytics — 3 hrs.

Quantitative and qualitative aspects of problem solving and decision making. Structuring and basics of decision making, applications of probability, functional relationships, marginal analysis, and linear programming. Emphasis on model formulation and interpretation of results. May not be used for credit toward the Economics major or minor or the Social Science major or minor. Prerequisite(s): STAT 1772 or equivalent; MGMT 2080 (can be taken as a corequisite) or PHYSICS 1701. (Fall and Spring)

ECON 2112. Intermediate Microeconomic Theory — 3 hrs.

In-depth analysis of consumer theory, firm production and costs, and market structures, with a primary focus on how individuals and firms make choices. Prerequisite(s): ECON 1041; ECON 1051. (Fall)

ECON 2122. Intermediate Macroeconomic Theory — 3 hrs.

Intermediate level macroeconomics. Determinants of aggregate demand, national product and employment; and macroeconomics

Course Descriptions

objectives and policies. Prerequisite(s): ECON 1041; ECON 1051. (Spring)

ECON 2132. Money and Banking — 3 hrs.

Money, commercial banking, the Federal Reserve System, and monetary policy. Prerequisite(s): ECON 1041; ECON 1051. (Fall and Spring)

ECON 2140. Health Economics — 3 hrs.

Health Economics: The application of economic principles to the delivery, costs, pricing, and financing of health care services and products. Emphasis is on the health care industry, consumer choices, and government policy. Prerequisite(s): ECON 1031 or ECON 1041 or ECON 1051. (Variable)

ECON 3125. Economics of Sustainability — 3 hrs.

Why do some businesses pursue sustainability initiatives while others do not? What does economic theory tell us about preservation versus use of natural resources? This course will explore such questions by evaluating the business, social, and policy implications of sustainability when viewed through both an economic and interdisciplinary perspective. Prerequisite(s): ECON 1001 or ECON 1031 or ECON 1041 or ECON 1051 or consent of instructor; junior standing. (Variable)

ECON 3179. Cooperative Education in Economics — 1-6 hrs.

Compensated work experience in conjunction with an academic project conducted under faculty guidance. University elective credit is given on a graded basis. Prerequisite(s): ECON 2122; ECON 2112; cumulative UNI GPA of 3.00 or higher required prior to application; consent of department head. (Fall, Spring, Summer)

ECON 3217/5217. Economics of Labor Markets — 3 hrs.

An investigation into the market forces affecting the supply of and demand for labor and the determination of wages in the U.S. Discussion topics may include income maintenance programs, health and safety in industry, income inequality, human capital formation and/or labor mobility. Prerequisite(s): ECON 1001 or ECON 1051; junior standing. (Variable)

ECON 3221/5221. Public Finance — 3 hrs.

Taxation and government expenditures; fiscal policy. Prerequisite(s): ECON 1041; ECON 1051; junior standing. (Variable)

ECON 3224/5224. International Trade and Financial Economics — 3 hrs.

Covers concepts in International Economics as well as international financial economics. Topics in International Economics will include international trade theory, trade strategies, economic unions, and factor movements. Topics in international financial economics will include international financial theories and analysis of balance of payments, alternative exchange rate regimes, and capital movements. Prerequisite(s): ECON 1041; ECON 1051; junior standing. (Variable)

ECON 3225/5225. Environmental Economics — 3 hrs.

Achieving allocative efficiency and cost-effectiveness when setting environmental policy. Modeling environmental quality as a public good and pollution as an economic problem. Assessing the command-and-control approach versus the market approach to environmental problem solving and policy. Exploring historical and current policies on air quality, water quality, solid waste/toxic substance management, and/or global environmental management. Prerequisite(s): ECON 1041; ECON 1051; junior standing. (Variable)

ECON 3229/5229. Cost-Benefit Analysis — 3 hrs.

Impact of public projects on resource allocation and social well being. Meaning and interpretation of Net Present Value (NPV). Problems

encountered in quantifying various components of NPV and merits of alternative solutions. Prerequisite(s): ECON 1041; ECON 1051; junior standing. (Variable)

ECON 3231/5231. Law and Economics — 3 hrs.

Analysis of the influence of legal rules and institutions on the economic behaviors of individuals. Examination of the principles of economics as they relate to private and public law, with special emphasis on economic efficiency and equity. Applications from civil procedure, criminal, contract, and tort law. Prerequisite(s): ECON 1001 or ECON 1031 or ECON 1041 or ECON 1051; junior standing. (Variable)

ECON 3237/5237. Sports Economics — 3 hrs.

Uses microeconomic principles with simple game theory and probability/statistical tools to investigate the organization of professional sports leagues, player pay, competitive balance, demand for games, public financing of sports, and other issues. Prerequisite(s): ECON 1041; ECON 1051; or consent of instructor; junior standing. (Variable)

ECON 3249/5249. Economic Development — 3 hrs.

Characteristics of developing nations, causes of underdevelopment, development theories, and development strategies. Prerequisite(s): ECON 1041; ECON 1051; junior standing. (Variable)

ECON 3253/5253. Urban and Regional Economics — 3 hrs.

Theory of location and regional development; factors influencing growth and location of production, location of households, city location and urban hierarchies, and land use patterns; measures and change in regional economic activity; and public policy issues in regional and urban evolution. Research methods including economic base, employment multiplier, location quotient, and threshold analyses. Prerequisite(s): ECON 1041; ECON 1051, or consent of instructor; junior standing. (Variable)

ECON 3257/5257. History of Economic Thought — 3 hrs.

Development of economic theory from early Greeks to John Maynard Keynes. Special emphasis given to Adam Smith, Karl Marx, and Thorstein Veblen. Prerequisite(s): ECON 1041; ECON 1051; junior standing. (Variable)

ECON 3269/5269. Mathematical Economics — 3 hrs.

Application of mathematics to economics with an emphasis on matrices and introductory calculus. Prerequisite(s): ECON 1041; ECON 1051, or consent of instructor; junior standing. (Variable)

ECON 3371. Economic and Business Forecasting — 3 hrs.

Economic and Business Forecasting: The formulation of forecasts using statistical methods and software for time series data. Emphasis on forecasting economic variables such as employment, prices, and production; and business variables such as sales and inventories. Prerequisite(s): STAT 1772; ECON 1031 or ECON 1041 or ECON 1051, or consent of instructor; junior standing. (Spring)

ECON 3373/5373. Introduction to Econometrics — 3 hrs.

Econometric techniques and the development of statistical techniques unique to economics; econometric relationships derived in single and multivariate linear and non-linear regression analysis; use of statistical inference in econometric investigation with applications to classical works of economic topics. Prerequisite(s): STAT 1772; ECON 1041; ECON 1051, or consent of instructor; junior standing. (Spring)

ECON 4380/5380. Directed Research in Economics — 3 hrs.

Students demonstrate their grasp of economic theory and their writing abilities. Prerequisite(s): ECON 1041; ECON 1051; ECON 2112; ECON 2122; senior standing; Economics major. (Variable)

ECON 6285. Individual Readings — 1-3 hrs.

Prerequisite(s): consent of MBA Program Coordinator and department head. (Fall, Spring, Summer)

ECON 6299. Research — 1-6 hrs.

Prerequisite(s): consent of MBA Program Coordinator and department head. (Fall, Spring, Summer)

ECON 6520. Managerial Economics — 3 hrs.

Application of economic theory and methods to business and administrative decision making. Prerequisite(s): ECON 1031 or equivalent; consent of MBA Program Coordinator. (Variable)

EDLEAD: Educational Leadership

Courses

EDLEAD 4198. Independent Study — 1-6 hrs.

(Variable)

EDLEAD 4319. Political and Ethical Issues in Education — 3 hrs.

Students will become familiar with issues of power, politics and ethics in education systems. The course will examine ways in which individuals in leadership positions use power and political skills to influence the effectiveness of educational systems and the ethical challenges that arise from such efforts. Prerequisite(s): consent of instructor. (Variable)

EDLEAD 6206. Orientation to Educational Leadership Standards — 2 hrs.

Orientation to the study and practice of school leadership, Iowa Educational Leadership Standards, current and historical trends impacting school and the principalship, and philosophical perspectives impacting school leadership. Corequisite(s): EDLEAD 6247. (Fall)

EDLEAD 6212. Teacher Leadership in International Schools — 3 hrs.

An in-depth look at the knowledge and skills necessary to be teacher leaders in international school settings. Prerequisite(s): Admission to the M.A. Major in Teacher Leadership for International Educators. (Variable)

EDLEAD 6225. Activities Administration — 2 hrs.

The study and in-school application of current research and promising practices related to the administration of PK-12 school activities programs, including athletics, fine arts, clubs, etc. and their role in school's overall programming and mission. Prerequisite(s): EDLEAD 6206; EDLEAD 6247; or consent of instructor. (Variable)

EDLEAD 6232. School Governance, Law and Intersystems Relations — 3 hrs.

Development of knowledge of the many aspects of local, regional, state, and federal governance of public schools, legal issues, school funding, respect for people's rights, and competence in managing school risk to avoid legal liability. Prerequisite(s): EDLEAD 6206; EDLEAD 6245. (Variable)

EDLEAD 6235. Community Connections — 2 hrs.

Exploration and in-school/community application of current research on promising practices and strategies that support parental and community engagement in the school's mission and the principal's role in facilitating stakeholder engagement. Prerequisite(s): EDLEAD 6206; EDLEAD 6247; or consent of instructor. (Variable)

EDLEAD 6240. Technology for School Leaders — 2 hrs.

Course explores current promising practice in technology use for building school leaders. Prerequisite(s): admitted to the M.A. Major in Teacher Leadership for International Educators. (Variable)

EDLEAD 6245. Leadership for Effective Schools — 2 hrs.

Study of contemporary leadership, change, and staff development in school organizations. (Variable)

EDLEAD 6247. School Management for Student Learning — 3 hrs.

Examination of key administrative management concepts and techniques employed by effective school principals to support student learning and achievement. Corequisite(s): EDLEAD 6206. (Variable)

EDLEAD 6248. Leading Instruction in Schools — 3 hrs.

Intensive study of the knowledge and skills needed by teacher leaders to support Professional Learning Communities, effectively use technology, develop teacher leadership, and embrace the role of the instructional leader. (Variable)

EDLEAD 6249. Leading Learning, Teaching, and Curriculum — 3 hrs.

(Tailored for teacher leaders in American international schools)
Extensive study in the knowledge and skills needed by teacher leaders to help lead the development and delivery of curriculum, assessment and instruction focused on student achievement. (Variable)

EDLEAD 6251. Supporting Instruction in the Classroom — 3 hrs.

Supporting Instruction in the Classroom - will address the theoretical and practical models for instructional coaching and the tools to support teachers (and the coaches themselves) while using school data to inform instruction. Students will master content regarding Student-Centered Coaching developed by Diane Sweeney, learn and apply principles of Instructional Rounds in Education by City, Elmore, Fairman, and Lee, and attain knowledge and strategies for Building Teachers' Capacity for Success by Hall and Simeral. Students will have opportunities to reflect on current practices, identify, develop and implement coaching strategies that best fit their personal situations, and collaborate with other instructional coaches through various forms of social media. Prerequisite(s): EDLEAD 6248. (Fall and Spring)

EDLEAD 6252. Coaching Teachers — 3 hrs.

This graduate credit course is designed to apply educational research and leadership principles in a shared leadership environment. Those interested in, or currently engaged in, teacher leadership roles in their buildings and/or districts will find this course to be practical and applicable. Prerequisite(s): EDLEAD 6248, EDLEAD 6251. (Fall and Spring)

EDLEAD 6260. Power, Politics & Ethics for International Educators — 3 hrs.

The study of power, politics and ethics identifies the critical roles of educators and the network of individuals, agencies, and organizations that impact an education system. This course will develop an understanding of how to use power and political skills in ethical ways to create opportunities to improve student performance, administrative, faculty, staff, and organizational effectiveness; with a specific focus in international school settings. Prerequisite(s): declared M.A. Teacher Leadership for International Educators major. (Fall and Spring)

EDLEAD 6282. Leading School Growth and Improvement — 2 hrs.

Study of the teacher leader's role in leading school growth and improvement and the change process. (Variable)

Course Descriptions

EDLEAD 6284. Evaluator Approval for Improved Student Learning — 3 hrs.

Development of knowledge of various problems and procedures in the organization of elementary and secondary school professional growth. Special emphasis on supervision processes and identifying and analyzing effective teaching and performance behaviors. (Variable)

EDLEAD 6285. Readings in Educational Leadership.

Prerequisite(s): written consent of instructor. (Variable)

EDLEAD 6289. Seminar in Educational Leadership.

Seminars offered on special topics as indicated in the Schedule of Classes. (Variable)

EDLEAD 6291. Internship — 1-3 hrs.

Advanced supervised experience to further develop skills in Educational Leadership Standards. Offered on credit/no credit basis only. May be repeated for maximum of 3 hours. (Variable)

EDLEAD 6292. Capstone to Educational Leadership — 1 hr.

Final work project that demonstrates application and synthesizes the educational standards adopted by the state of Iowa. Prerequisite(s): EDLEAD 6206; EDLEAD 6247; or consent of instructor. (Variable)

EDLEAD 6299. Research.

Prerequisite(s): consent of department. (Variable)

EDLEAD 7310. Human Resource Administration — 3 hrs.

Teacher selection and placement, promotion, tenure, collective bargaining and retirement; administration of pupil personnel facilitating services. (Variable)

EDLEAD 7311. Educational Leadership and Systems Change — 3 hrs.

Examination of knowledge base for both change and leadership. Emphasis on understanding how change factors and leadership styles interact to influence receptiveness to and acceptance of change. Prerequisite(s): doctoral status or admittance into the Advanced Studies Certificate (ASC)- Superintendency program (Same as POSTSEC 7311) (Variable)

EDLEAD 7315. Leading Teaching, Learning and Assessment — 3 hrs.

Focus on what boards of education need to know and be able to do; and the leadership role of the board/superintendent team for improving student achievement by sharing culture and conditions within the school district that contribute to productive change. Prerequisite(s): students must be enrolled in the superintendency preparation program cohort or doctoral program in educational leadership or have permission of instructor. (Variable)

EDLEAD 7318. Evaluation of Administrators — 2 hrs.

Provides superintendents and other educational leaders with knowledge and skills necessary in the supervision and evaluation process in K-12 schools. The Iowa Professional Development Model serves as a foundation for this course. Prerequisite(s): students must be enrolled in the superintendency preparation program cohort or the doctoral program. The instructor may grant special permission to graduate students outside educational leadership. (Variable)

EDLEAD 7319. Power, Politics, and Ethics in School District Leadership — 3 hrs.

Identifies critical roles of teacher leaders and network of individuals/agencies/organizations that impact education system. Develops understanding of how to identify community's power structure and use power/political skills in ethical ways to improve student achievement. Prerequisite(s): Consent of program coordinator. (Variable)

EDLEAD 7340. Funding the Educational Program for Improved Student Achievement — 3 hrs.

Focus on how public schools in U.S. are funded, with special attention to funding public schools in Iowa. Major emphasis on funding and allocation of resources for the improvement of student achievement. (Variable)

EDLEAD 7346. School Business Management — 3 hrs.

Develops the rationale for the function of school business administration. Assists school administrators in managing business affairs and auxiliary services of the school district. Prerequisite(s): EDLEAD 7340; master's degree in Educational Leadership or the Principalship certification. (Variable)

EDLEAD 7385. Readings in Educational Leadership.

Individualized list of selected readings in an area of emphasis, as determined by instructor and student. May be repeated. Prerequisite(s): written consent of instructor. (Variable)

EDLEAD 7389. Seminar in Educational Leadership.

Offered on special topics as determined and scheduled by the department. May be repeated. Limited to post-master's students. (Variable)

EDLEAD 7391. Internship in Educational Leadership — 1-9 hrs.

Advanced supervised experience to further develop skills. May be repeated. Offered on credit/no credit basis only. Prerequisite(s): consent of advisor. (Variable)

EDLEAD 7397. Practicum in Educational Leadership — 2-4 hrs.

May be repeated. Offered on credit/no credit basis only. Limited to post-master's students. Prerequisite(s): consent of advisor. (Fall and Spring)

EDPSYCH: Educational Psychology

Courses

EDPSYCH 1500. Reflections on Learning — 3 hrs.

This course examines the question, "What is learning?". The question is broadly considered for both in-school and non-school settings, and for improving one's own learning and the learning of others. Towards this end, topics in this course will include how learning can be viewed through cognitive, developmental, sociocultural, behavioral and strategic lenses. Readings, activities, lectures, case analyses, and class discussions will focus on learning processes and evidence-based practices for promoting learning. (Fall, Spring, Summer)

EDPSYCH 2030. Dynamics of Human Development — 3 hrs.

Students in this course will examine the social contexts of human development (0-18 years of age) and the theoretical and historical perspectives that inform our understanding of development. In particular cross-cultural lenses will be used to uncover the cultural nature of development. Implications of these perspectives for supporting the development of individuals across multiple domains (e.g., physical, cognitive, psychosocial) will be discussed. Examination of diverse viewpoints, theories, and methods of inquiry provide an avenue for students to develop skills in critical thinking and analysis and communicate their findings both orally and in writing. (Fall, Spring, Summer)

EDPSYCH 2068. Development and Learning in Sociocultural Contexts — 3 hrs.

Students in this course will examine the process of human development and learning in childhood and adolescence. Throughout

the course, students will be guided to learn about the interactions between individuals and sociocultural contexts in shaping developmental outcomes. Different theoretical perspectives on human development and learning will be introduced in this course. Implications of these perspectives for supporting the development and learning of individuals across multiple domains (e.g., physical, cognitive, social-emotional) will be discussed. In particular aspects of social-emotional development will be emphasized to examine the dynamics of development and learning outcomes. Studying a diversity of viewpoints and theories offers students an opportunity to develop critical thinking and analysis skills that can help build different strategies to enhance development and learning. (Fall, Spring, and Summer Variable)

EDPSYCH 2100. Creativity and Higher Order Thinking in the Classroom — 3 hrs.

Creativity and Higher Order Thinking is designed to equip pre-service teachers with a working knowledge of critical thinking and creativity and how to promote them in the school environment. Students will learn developmentally appropriate approaches to thinking about, designing, and re-designing learning experiences for students to promote critical and creative thinking. (Fall and Spring)

EDPSYCH 3109/5109. Development and Assessment of Young Children — 3 hrs.

In-depth study of children's development and its assessment from birth through grade three. Emphasis on examining developmental differences among individual children and implications for developmentally and individually appropriate classroom practice. Prerequisite(s): EDPSYCH 2068 or equivalent or consent of instructor; junior standing. (Fall, Spring, Summer)

EDPSYCH 3148. Learning and Motivation in Classroom Contexts — 3 hrs.

Examination of the influence of cognitive, motivational, and socio-cultural factors on students' learning in classroom contexts, with an emphasis on implications for classroom instruction and improved student achievement. Prerequisite(s): EDPSYCH 2030; or equivalents. Registration requires full admission to the Teacher Education Program. Must have a cumulative 2.50 or higher to enroll in this course. (Fall, Spring, Summer)

EDPSYCH 3200. Deeper Motivation and the Highly Engaged Classroom — 3 hrs.

Motivation plays a central role in classroom learning environments. Developing a space that fosters enthusiasm, interest, enjoyment, and belonging comes about through careful attention to how we develop and conduct spaces for learning. Students will learn to analyze, design, and re-design, learning environments to promote deeper motivation. (Fall, Spring, Summer)

EDPSYCH 3300. Level Up: Gamified Learning Environments — 3 hrs.

In Level Up we will use the study of learning environments from the perspective of learner centered design as well as game design principles to engage classroom learners with excitement, storytelling, problem solving, and collaboration. A learning environment is any space, physical or digital, where learning is fostered, facilitated, and expected, and includes everything from job training to museums to classrooms. So the question is not what can we learn from playing a game, as that is not the approach of this course, but rather what have game designers learned about creating motivating learning environments and how can we integrate these principles into the classroom environment. This course is designed for students interested in creating learning environments, and while gamers might benefit

from such a course, classroom learning, student motivation, and positive social collaboration are at the heart of the course. Note: This course focuses on in-person classroom-based activities and computer programming is neither taught nor required. A blend of tabletop games, computer games, and simulations is used in the course. All students interested in learning environment designs are welcome to level up their teaching in this course. (Fall and Spring)

EDPSYCH 4116/5116. Psychology of Adolescence — 2 hrs.

Psychological concepts applied to adolescent intellectual, physical, and psychosocial behaviors; designed to improve understanding of, and relationships with, adolescents and their search for identity. Prerequisite(s): EDPSYCH 2030 or equivalent; junior standing. (Variable)

EDPSYCH 4118/5118. Mental Health and Well-Being in the Classroom — 3 hrs.

Basic principles of mental health as they apply to the entirety of the educative enterprise. Focus on causative factors relating to the mental health of teachers and students, and ways of arranging classroom environments which maximize learning and minimize threat and self devaluation. Prerequisite(s): EDPSYCH 2030 or equivalent; junior standing. (Variable)

EDPSYCH 4140/5140. Social Psychology in Educational Contexts — 3 hrs.

Students in this course learn to apply social psychological perspectives when interpreting educational situations and events. Through reading and discussion students map the influence of self-definition, motivation, relationships, and familial, school, and neighborhood contexts to educational outcomes. Students evaluate interventions based on social psychological principles and consider their role in educational and social transformation. Prerequisite(s): junior standing. (Variable)

EDPSYCH 4151/5151. Approaches to Classroom Management for Secondary Students — 3 hrs.

Strategies and processes designed to create and maintain classroom management intended to nurture the atmosphere leading to increased academic achievement and personal development of adolescent students. Prerequisite(s): EDPSYCH 2030; EDPSYCH 3148; or equivalents; junior standing. (Variable)

EDPSYCH 4152/5152. Development of the Middle School Aged Child — 3 hrs.

Focus on the cognitive, physical, social and emotional development of the middle school aged child (ages 11 to 15). Examination of the contexts of the middle school child including the home, school, and peers. Prerequisite(s): junior standing. (Variable)

EDPSYCH 4157/5157. Interpersonal Forgiveness — 3 hrs.

This course consists of a psychological and philosophical examination of forgiveness and will focus primarily on interpersonal forgiveness, the gift an injured person gives to the one who hurt him or her. Topics include what forgiveness is and is not, forgiveness in philosophy, the process of forgiveness, applications and benefits of forgiveness, forgiveness in education, and forgiveness and bullying. Students will also read about self-forgiveness, group and cultural perspectives of forgiveness and community and national issues related to forgiveness. By the end of the course, students will have gained a greater understanding and knowledge of the psychology of interpersonal forgiveness. The course will also help students improve their writing and critical thinking skills. Prerequisite(s): junior standing. (Fall or Spring)

Course Descriptions

EDPSYCH 4176/5176. Learning and Behavioral Problems in Education — 3 hrs.

Learning and behavior problems of students with focus on issues of identification, etiology, assessment, developmental changes, and intervention including consideration of personal, social, cultural, historical, and economic contexts. Prerequisite(s): junior standing. (Variable)

EDPSYCH 4180/5180. Community Service: Academic Skills Achievement Center — 2-4 hrs.

Tutorial experience in multicultural school setting. Collateral seminar for sharing personal insights and discussion of core readings on cultural pluralism. May be repeated once for credit. Prerequisite(s): junior standing or consent of department head. (Fall and Spring)

EDPSYCH 4188/5188. Current Approaches to Multicultural Education — 3 hrs.

Comparison of alternative models of multicultural education and study of their application in school settings. Prerequisite(s): junior standing. (Spring)

EDPSYCH 4198. Independent Study — 1-6 hrs. (Variable)

EDPSYCH 4232/5232. Risk and Resilience: Child, Family, School and Community Factors — 3 hrs.

Examination of children's cognitive and psychosocial development within family, school and community contexts, socio-historical factors which impact children, families, schools and communities, and implications for elementary school curricula and pedagogy. Prerequisite(s): junior standing. (Variable)

EDPSYCH 6214. Foundations of Instructional Psychology — 3 hrs.

Study of factors involved in designing and implementing effective instructional environments. (Fall, Spring, Summer)

EDPSYCH 6215. Advances in Educational Psychology: The Science of Learning — 3 hrs.

This course examines what current research in psychological science has to say about the learning process, individual differences, and its implications for instruction. We begin by examining the construct of talent/ability and the development of skill/expertise. Next, we examine domain-general learning strategies (e.g., retrieval practice) and how they support the learning process. Finally, we take a closer look at the development of mathematical and reading proficiency/difficulties - as detailed domain specific "snapshots" of the transition from novice to expert. A major goal of this course will be to consider how insight gained from this research can be applied to help shape our understanding and design of effective educational practices and interventions for students. (Fall or Spring)

EDPSYCH 6216. Advances in Educational Psychology: The Psychology of Literacy — 3 hrs.

This course examines what current research in psychological science has to say about the learning process, individual differences, and its implications for literacy instruction. Specifically, we take a closer look at the development of reading and writing proficiency/difficulties, how this understanding may inform approaches to literacy instruction and highlight some of the differences in perspectives that currently exist among educators. (Variable)

EDPSYCH 6224. Adult Development and Learning — 3 hrs.

Overview of individual development from young adulthood through middle adulthood. Emphasis is breadth and range of individual growth and development during the adult years. Focus on psychological issues

associated with social, emotional, and cognitive development, and adult learning and teaching. (Variable)

EDPSYCH 6235. Theories of Human Development — 3 hrs.

Major theories of human development (e.g., psychoanalytic, cognitive, developmental, humanistic, and social learning theory). Includes study of noted theorists in each area and educational implications and applications of their work. Prerequisite(s): EDPSYCH 3109/5109 or EDPSYCH 4116/5116. (Variable)

EDPSYCH 6240. Introduction to School Psychology — 3 hrs.

Psychological services in schools; roles and functions of school psychologists; review of professional, legal and ethical standards and implications for practice. Prerequisite(s): Admission to the MAE in Educational Psychology with Context and Techniques of Assessment Emphasis (School Psychology program). (Fall)

EDPSYCH 6260. Counseling Interventions in School — 3 hrs.

This course provides specialized knowledge and skills training in counseling children and adolescents. Students will learn to assess behavior and incorporate developmental, cultural, legal, and gender appropriate strategies and techniques to meet the needs of counseling children and adolescents in a school context. Students will examine various theoretical, behavioral, and play therapy techniques for counseling children and adolescents. Prerequisite(s): Admission to the Ed.S. program in School Psychology or instructor permission. (Spring)

EDPSYCH 6270. Behavioral Interventions in School Settings — 3 hrs.

Overview of evidence-based interventions to address the social, emotional, and behavioral needs of students; using assessment data to develop student goals and monitor student progress; supervised practice developing, implementing, and monitoring interventions in the schools. Prerequisite(s): Admission to the Ed.S. program in School Psychology or instructor permission. (Fall)

EDPSYCH 6272. Systems Consultation — 3 hrs.

Examination of the multiple systems involved in PK-12 education, the organizational change process, and the context of current educational practice and reform. Application of these concepts to various systems level issues. Prerequisite(s): Admission to the Ed.S. program in School Psychology or instructor permission. (Spring)

EDPSYCH 6280. Psychological Consultation in Schools — 3 hrs.

Overview of major theoretical models of consultation (including systems level consultation), an in-depth opportunity to develop behavioral consultation and intervention skills through an authentic referral, and an emphasis on professional accountability through monitoring the effects of intervention. Prerequisite(s): Admission to the MAE in Educational Psychology with Context and Techniques of Assessment Emphasis (School Psychology program). (Spring)

EDPSYCH 6285. Readings. (Variable)

EDPSYCH 6288. M.A.E. Practicum in Education and Psychology — 1-3 hrs.

Practicum placement for first year graduate school psychology students. Placements coordinated with instructor of record. Class meetings and assignments required. May be repeated. Prerequisite(s): Admission to the MAE in Educational Psychology with Context and Techniques of Assessment Emphasis or instructor permission. (Fall and Spring)

EDPSYCH 6289. Seminar in Education and Psychology — 1-6 hrs.

May be repeated for credit. Prerequisite(s): consent of instructor. (Variable)

EDPSYCH 6290. Ed.S. Practicum in Education and Psychology — 1-6 hrs.

Practicum placement for second year graduate school psychology students. Placements coordinated with instructor of record. Class meetings and assignments required. May be repeated. Prerequisite(s): Admission to the Ed.S. program in School Psychology. (Fall and Spring)

EDPSYCH 6291. Internship in School Psychology — 1-6 hrs.

Supervised off-campus field experience. May be repeated for maximum 6 hours. (Fall and Spring)

EDPSYCH 6299. Research.

Prerequisite(s): consent of department. (Fall and Spring)

EDUC: Education

Courses

EDUC 2300. Teaching Methods I: (Topic) — 2-3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. May be repeated on different topics. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2400. (Fall, Spring, Summer)

EDUC 2301. Teaching Methods I: Infant/Toddler Curriculum and Early Intervention — 3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2401. (Fall, Spring, Summer)

EDUC 2302. Teaching Methods I: Elementary Curriculum — 3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2402. (Fall, Spring, Summer)

EDUC 2314. Teaching Methods I: Elementary Art — 3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2414. (Fall, Spring, Summer)

EDUC 2320. Teaching Methods I: The Teaching of Writing — 3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2420. (Fall, Spring, Summer)

EDUC 2334. Teaching Methods I: Language Teaching Methods I — 3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2434. (Fall, Spring, Summer)

EDUC 2341. Teaching Methods I: Industrial Technology Curriculum Planning — 3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2441. (Fall, Spring, Summer)

EDUC 2343. Teaching Methods I: Secondary Mathematics — 3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2443. (Fall, Spring, Summer)

EDUC 2344. Teaching Methods I: Introduction to Music Education — 2 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2444. (Fall, Spring, Summer)

EDUC 2346. Teaching Methods I: Elementary Methods and Movement Activities in Physical Education — 3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a

Course Descriptions

wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2446. (Fall, Spring, Summer)

EDUC 2371. Teaching Methods I: Introduction to Business Teaching — 2 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2471. (Fall, Spring, Summer)

EDUC 2385. Teaching Methods I: Secondary Science — 3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2485. (Spring)

EDUC 2386. Teaching Methods I: Introduction to Teaching Social Studies — 2 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2486. (Fall and Spring)

EDUC 2387. Teaching Methods I: Methods of Teaching Communication — 3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by their discipline and content standards, infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): Admission to Teacher Education. Corequisite(s): EDUC 2487. (Fall, Spring, Summer)

EDUC 2400. Teaching Internship I: (Topic) — 2-3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. May be repeated

on different topics. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2300. (Fall, Spring, Summer)

EDUC 2401. Teaching Internship I: Infants/Toddlers — 3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2301 or ECIE 4124/5124. (Fall, Spring, Summer)

EDUC 2402. Teaching Internship I: Elementary Curriculum — 3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2302 or ELEMECML 4150. (Fall, Spring, Summer)

EDUC 2414. Teaching Internship I: Elementary Art — 3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2314. (Fall, Spring, Summer)

EDUC 2420. Teaching Internship I: English Practicum — 3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2320 or ENGLISH 3920/5920. (Fall, Spring, Summer)

EDUC 2434. Teaching Internship I: Language Teaching Practicum — 3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor

and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2334 or LANG 4740/5740. (Fall, Spring, Summer)

EDUC 2441. Teaching Internship I: Industrial Technology Instruction I — 3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2341 or TECH TEE 3100/5100. (Fall, Spring, Summer)

EDUC 2443. Teaching Internship I: Secondary Mathematics — 3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2343 or MATH 2303. (Fall, Spring, Summer)

EDUC 2444. Teaching Internship I: Music Education — 2 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2344. (Fall, Spring, Summer)

EDUC 2446. Teaching Internship I: Elementary Physical Education — 3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and

responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2346 or KINES 4172. (Fall, Spring, Summer)

EDUC 2471. Teaching Internship I: Business — 3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2371. (Fall, Spring, Summer)

EDUC 2485. Teaching Internship I: Secondary Science — 3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2385 or SCI ED 3300/5300. (Spring)

EDUC 2486. Teaching Internship I: Social Studies and History — 3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2386 or SOCSCIED 2190. (Fall and Spring)

EDUC 2487. Teaching Internship I: Communication & Theatre — 2 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of their professor and mentor teacher. In preparing, teaching, and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. Offered on credit/no credit basis only. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 2387 or COMM 4559. (Fall, Spring, Summer)

Course Descriptions

EDUC 3500/5500. Teaching Methods II: (Topic) — 1-3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. May be repeated on different topics. Prerequisite(s): for undergraduates: EDUC 2300; 2400; junior standing. Prerequisites for graduates: EDUC 5300; 5400. Corequisite(s): EDUC 3600/5600. (Fall, Spring, Summer)

EDUC 3504/5504. Teaching Methods II: Language Teaching Methods II — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2334 or LANG 4740/5740; EDUC 2434; junior standing. Corequisite(s): EDUC 3604/5604 or TESOL 4770. (Fall)

EDUC 3514/5514. Teaching Methods II: Secondary Art — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2314; EDUC 2414. Corequisite(s): EDUC 3614/5614. (Fall, Spring, Summer)

EDUC 3518/5518. Teaching Methods II: Middle Level Grades — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): junior standing. Corequisite(s): EDUC 3618/5618. (Fall, Spring, Summer)

EDUC 3520/5520. Teaching Methods II: The Teaching of English — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging

students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2320 or ENGLISH 3920/5920; EDUC 2420; junior standing. Corequisite(s): EDUC 3620/5620. (Fall, Spring, Summer)

EDUC 3523/5523. Teaching Methods II: Teaching Elementary Science — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2301 or ELEMECML 4124 or EDUC 2302 or ELEMECML 4150; EDUC 2401 or EDUC 2402; junior standing. Corequisite(s): EDUC 3524/5524 or ELEMECML 3164; EDUC 3602/5602. (Fall, Spring, Summer)

EDUC 3524/5524. Teaching Methods II: Teaching Elementary and Middle-Level Social Studies — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2301 or ELEMECML 4124 or EDUC 2302 or ELEMECML 4150; EDUC 2401 or EDUC 2402; junior standing. Corequisite(s): EDUC 3523/5523 or ELEMECML 3161; EDUC 3602/5602. (Fall, Spring, Summer)

EDUC 3534/5534. Teaching Methods II: Language Assessment — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2334 or LANG 4740/5740; EDUC 2434; junior standing. Corequisite(s): EDUC 3634/5634 or SPAN 4091. (Fall, Spring, Summer)

EDUC 3541/5541. Teaching Methods II: Industrial Technology Lab Management — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2341 or TECH TEE 3100/5100; EDUC 2441; junior standing. Corequisite(s): EDUC 3641/5641 or TECH TEE 4100. (Fall, Spring, Summer)

EDUC 3543/5543. Teaching Methods II: Secondary Mathematics — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2343 or MATH 2303; EDUC 2443; junior standing. Corequisite(s): EDUC 3643/5643 or MATH 3302. (Fall, Spring, Summer)

EDUC 3544/5544. Teaching Methods II: Choral Methods and Materials — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2344; EDUC 2444; junior standing. Corequisite(s): EDUC 3644/5644 or MUS ED 3660. (Fall, Spring, Summer)

EDUC 3545/5545. Teaching Methods II: Concert Band Methods — 1 hr.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2344; EDUC 2444; junior standing. Corequisite(s): EDUC 3644/5644 or MUS ED 3660. (Fall, Spring, Summer)

EDUC 3546/5546. Teaching Methods II: Secondary Methods and Curriculum in Physical Education — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2346 or KINES 4172; EDUC 2446; junior standing. Corequisite(s): EDUC 3646/5646. (Fall, Spring, Summer)

EDUC 3571/5571. Teaching Methods II: Business Teaching — 2 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2371; EDUC 2471; junior standing. Corequisite(s): EDUC 3671/5671. (Fall, Spring, Summer)

EDUC 3585/5585. Teaching Methods II: Secondary Science — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2385 or SCI ED 3300/5300; EDUC 2485; junior standing. Corequisite(s): EDUC 3685/5685. (Fall)

EDUC 3586/5586. Teaching Methods II: Methods of Teaching Social Studies — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2386 or SOCSCIED 2190; EDUC 2486; junior standing. Corequisite(s): EDUC 3686/5686. (Fall, Spring, Summer)

EDUC 3587/5587. Teaching Methods II: Methods of Teaching Drama & Theatre — 3 hrs.

Students will extend their existing knowledge and skills while learning and practicing new pedagogical methods for presenting and engaging

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students with content and content literacies, as well as, the variety of products and performances possible to demonstrate student learning. The ways assessment data informs practice before, during, and after instruction will be addressed specifically considering how to use data for whole-class instruction, reteaching, differentiation, and providing meaningful feedback to learners. Students will collaborate with others for professional growth and student benefit. The corequisite internship course will support and extend the learning in this course. Prerequisite(s): EDUC 2387 or COMM 4559; EDUC 2487; junior standing. Corequisite(s): EDUC 3687/5687. (Fall, Spring, Summer)

EDUC 3600/5600. Teaching Internship II: (Topic) — 2-3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. May be repeated on different topics. Prerequisite(s): for undergraduates: EDUC 2300; EDUC 2400; junior standing. Prerequisite for graduates: EDUC 5300; EDUC 5400. Corequisite(s): EDUC 3500/5500. (Fall, Spring, Summer)

EDUC 3602/5602. Teaching Internship II: Elementary Methods — 3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2301 or ELEMECML 4124 or EDUC 2302 or ELEMECML 4150; EDUC 2401 or EDUC 2402; junior standing. Corequisite(s): EDUC 3523/5523 or ELEMECML 3161; EDUC 3524/5524 or ELEMECML 3164. (Fall, Spring, Summer)

EDUC 3604/5604. Teaching Internship II: TESOL Teaching Practicum — 3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2334 or LANG 4740/5740; EDUC 2434; junior standing. Corequisite(s): EDUC 3504/5504 or TESOL 4760/5760. (Fall, Spring, Summer)

EDUC 3614/5614. Teaching Internship II: Secondary Art — 3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2314; EDUC 2414; junior standing. Corequisite(s): EDUC 3514/5514. (Fall, Spring, Summer)

EDUC 3618/5618. Teaching Internship II: Middle Level Grades — 3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): junior standing. Corequisite(s): EDUC 3518/5518 or ELEMECML 4135/5135. (Fall, Spring, Summer)

EDUC 3620/5620. Teaching Internship II: Advanced English Practicum — 3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2320 or ENGLISH 3920/5920; EDUC 2420; junior standing. Corequisite(s): EDUC 3520/5520 or ENGLISH 4980/5980. (Fall, Spring, Summer)

EDUC 3634/5634. Teaching Internship II: Spanish Teaching Practicum — 3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2334 or LANG 4740/5740; EDUC 2434;

junior standing. Corequisite(s): EDUC 3534/5534 or LANG 4750. (Fall, Spring, Summer)

EDUC 3641/5641. Teaching Internship II: Industrial Technology Instruction II — 3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2341 or TECH TEE 3100/5100; EDUC 2441; junior standing. Corequisite(s): EDUC 3541/5541 or TECH TEE 3150/5150. (Fall, Spring, Summer)

EDUC 3643/5643. Teaching Internship II: Secondary Mathematics — 3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2343 or MATH 2303; EDUC 2443; junior standing. Corequisite(s): EDUC 3543/5543 or MATH 3304. (Fall, Spring, Summer)

EDUC 3644/5644. Teaching Internship II: Music Education — 2 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2344; EDUC 2444; junior standing. Corequisite(s): EDUC 3544/5544 or EDUC 3545/5545. (Fall, Spring, Summer)

EDUC 3646/5646. Teaching Internship II: Secondary Physical Education — 3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration

in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2346 or KINES 4172; EDUC 2446; junior standing. Corequisite(s): EDUC 3546/5546 or KINES 4173. (Fall, Spring, Summer)

EDUC 3671/5671. Teaching Internship II: Business — 3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2371; EDUC 2471; junior standing. Corequisite(s): EDUC 3571/5571. (Fall, Spring, Summer)

EDUC 3685/5685. Teaching Internship II: Secondary Science — 3 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2385 or SCI ED 3300/5300; EDUC 2485; junior standing. Corequisite(s): EDUC 3585/5585 or SCI ED 4800/5800. (Fall)

EDUC 3686/5686. Teaching Internship II: Social Studies and History — 2 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2386 or SOCSCIED 2190; EDUC 2486; junior standing. Corequisite(s): EDUC 3586/5586 or SOCSCIED 4190. (Fall, Spring, Summer)

EDUC 3687/5687. Teaching Internship II: Communication & Theatre — 2 hrs.

This course contains a 35-hour field experience in a PK-12 school setting. Through the experience and coursework, students will extend their existing knowledge and skills, and learn and practice new information, strategies, and tools. Students will create, enact, assess, and reflect on student-centered instruction that supports the diverse needs of all students with special attention to English language

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learners. Opportunities for collaborative teaching will allow students to prepare for respectful, productive communication and collaboration in their teaching positions under close supervision of a professor and mentor teacher. The corequisite methods course will support and extend the learning in this course. Offered on credit/no credit basis only. Prerequisite(s): EDUC 2387 or COMM 4559; EDUC 2487; junior standing. Corequisite(s): EDUC 3587/5587 or THEATRE 3115. (Fall, Spring, Summer)

EDUC 4132. Early Childhood Teaching — 1-12 hrs.

Offered on credit/no credit basis only. Provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include planning and organizing for instruction, developing classroom teaching competencies and skills, evaluating student progress, participating in extra-class activities, working with special school personnel, and utilizing school and community resources in the instructional program. Prerequisite(s): completion of Internship I and II and Methods I and II professional experiences coursework; department consent. (Fall and Spring)

EDUC 4134. Elementary Teaching — 1-12 hrs.

Offered on credit/no credit basis only. Provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include planning and organizing for instruction, developing classroom teaching competencies and skills, evaluating student progress, participating in extra-class activities, working with special school personnel, and utilizing school and community resources in the instructional program. Prerequisite(s): completion of Internship I and II and Methods I and II professional experiences coursework; department consent. (Fall and Spring)

EDUC 4135. Special Education Teaching — 1-12 hrs.

Offered on credit/no credit basis only. Provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include planning and organizing for instruction, developing classroom teaching competencies and skills, evaluating student progress, participating in extra-class activities, working with special school personnel, and utilizing school and community resources in the instructional program. Prerequisite(s): completion of Internship I and II and Methods I and II professional experiences coursework; department consent. (Fall and Spring)

EDUC 4137. Middle School/Junior High Teaching — 1-12 hrs.

Offered on credit/no credit basis only. Provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include planning and organizing for instruction, developing classroom teaching competencies and skills, evaluating student progress, participating in extra-class activities, working with special school personnel, and utilizing school and community resources in the instructional program. Prerequisite(s): completion of Internship I and II and Methods I and II professional experiences coursework; department consent. (Fall and Spring)

EDUC 4138. Secondary School Teaching — 1-12 hrs.

Offered on credit/no credit basis only. Provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include planning and organizing for instruction, developing classroom teaching competencies and skills, evaluating student progress, participating in extra-class activities, working with special school personnel, and utilizing school and community resources in the instructional program.

Prerequisite(s): completion of Internship I and II and Methods I and II professional experiences coursework; department consent. (Fall and Spring)

EDUC 4139. Vocational/Technical Teaching — 1-12 hrs.

Offered on credit/no credit basis only. Provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include planning and organizing for instruction, developing classroom teaching competencies and skills, evaluating student progress, participating in extra-class activities, working with special school personnel, and utilizing school and community resources in the instructional program. Prerequisite(s): completion of Internship I and II and Methods I and II professional experiences coursework; department consent. (Fall and Spring)

EDUC 4140. Special Area Teaching: Art, ESL, Music, and Physical Education — 1-12 hrs.

Offered on credit/no credit basis only. Provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include planning and organizing for instruction, developing classroom teaching competencies and skills, evaluating student progress, participating in extra-class activities, working with special school personnel, and utilizing school and community resources in the instructional program. Prerequisite(s): completion of Internship I and II and Methods I and II professional experiences coursework; department consent. (Fall and Spring)

EDUC 5300. Teaching Methods I: (Topic) — 2-3 hrs.

Students will recognize, practice, and reflect on a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan and differentiate instruction for a wide variety of diverse students. Students will engage in curriculum design informed by content and content standards infusing technology to support specific learning goals. The corequisite internship course will support and extend the learning in this course. May be repeated on different topics. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 5400. (Fall, Spring, Summer)

EDUC 5400. Teaching Internship I: (Topic) — 2-3 hrs.

This course provides a minimum of 35 hours of field experience in which students are actively involved in preparing and teaching lessons in PK-12 school settings under the close supervision of your professor and mentor teacher. In preparing, teaching and reflecting on their lessons and other experiences, teacher candidates are expected to apply and document their understanding of teaching and learning processes. These processes include student engagement, lesson design and sequence, assessment, instructional decision-making and responsiveness to the cultural backgrounds and differing perspectives of learners. This course is offered on a credit/no-credit basis. May be repeated on different topics. Prerequisite(s): Admission to Teacher Education Program. Corequisite(s): EDUC 5300. (Fall, Spring, Summer)

EDUC 6130. Student Teaching Seminar — 4 hrs.

This course provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include planning and organizing for instruction, developing classroom teaching competencies and skills, evaluating student pupil progress, participating in extra-class activities, working with special school personnel, and utilizing school and community resources in the instructional program. (Summer)

EDUC 6250. Advanced Internship in Teaching — 2-12 hrs.

Offered on credit/no credit basis only. Provides the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include planning and organizing for instruction, developing classroom teaching competencies and skills, evaluating student progress, participating in extra-class activities, working with special school personnel, and utilizing school and community resources in the instructional program. Student may concentrate on any aspect of the school program, such as curriculum, methods, evaluation, remedial instruction, guidance, supervision, administration, public school relations, information and communication technologies, and co-curricular activities. Prerequisite(s): completion of Internship I and II and Methods I and II professional experiences coursework; department consent. (Fall, Spring, Summer)

ELEMECML: Elementary, Early Childhood and Middle Level Education

Courses

ELEMECML 3100/5100. Integrating Science, Technology, Engineering, and Mathematics in the Elementary Classroom — 3 hrs.

Focuses on integrating science, technology, engineering principles, and mathematics using both modeling and an inquiry approach. Engineering and scientific practices drive both the instructional planning, and inquiry-oriented curricula and assessment. The practice of engineering, along with the difference between science and engineering is addressed. Prerequisite(s): two courses from SCI ED 1200, SCI ED 1300, and SCI ED 1100 OR approval of the instructor; junior standing. (Even Falls)

ELEMECML 3120. Classroom Management K-8 — 3 hrs.

Focus on skills needed to organize and manage appropriate instruction in the elementary classroom. Prerequisite(s): junior standing. Registration requires full admission to the Teacher Education Program. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. Prerequisite(s) or corequisite(s): ELEMECML 4150 or EDUC 2302. (Fall and Spring)

ELEMECML 3159. Integrating STEM in Elementary Classrooms — 3 hrs.

Integrating STEM in Elementary Classrooms

ELEMECML 3161. Methods of Teaching Elementary School Science — 3 hrs.

Investigation of current textbook series, trends, teaching materials, and appropriate instructional strategies for contemporary elementary school science programs. Prerequisite(s): EDUC 2301 or EDUC 2302; EDUC 2401 or EDUC 2402; junior standing. Registration requires full admission to the Teacher Education Program. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Fall and Spring)

ELEMECML 3164. Methods of Teaching Elementary School Social Studies — 3 hrs.

Basic methods and materials for teaching the knowledge, skills, attitudes and values in history, geography, political science/civic literacy, economics and behavioral sciences. Prerequisite(s): EDUC 2301 or EDUC 2302; EDUC 2401 or EDUC 2402; junior standing. Registration requires full admission to the Teacher Education

Program. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Fall and Spring)

ELEMECML 3187. Facilitating Early STEM Education — 3 hrs.

What does STEM for children ages 4-9 look like? This course explores how to design high quality STEM experiences for PK-2 children that are developmentally appropriate. Students will engage in readings, discussions, and discovery of how these experiences are meaningful to our youngest learners, and how to enable children's access to them every day. (Fall and Spring)

ELEMECML 4121/5121. Infant and Toddler Curriculum and Guidance — 2 hrs.

Methods of implementing appropriate curriculum for and guidance of very young children, including children with diverse needs in inclusive group settings. Includes a required 15 hours field experience. Prerequisite(s) or corequisite(s): EDPSYCH 3109/5109; EDPSYCH 3148; junior standing. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Fall and Spring)

ELEMECML 4123/5123. Methods of Teaching Visual and Performing Arts Integration in the Elementary Classroom — 3 hrs.

Introduction, exploration and application of various methods for teaching and assessing visual and performing arts integration with content across the elementary curriculum. Prerequisite(s): junior standing. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Fall and Spring)

ELEMECML 4125/5125. Methods of Teaching Health, Fitness, Visual and Performing Arts Integration in Elementary Classroom — 3 hrs.

Introduction, exploration and application of various methods for teaching and assessing health, fitness, visual and performing arts integration with content across the elementary curriculum. Prerequisite(s): junior standing. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Fall and Spring)

ELEMECML 4135/5135. Middle Level Instruction, Differentiation, and Assessment — 3 hrs.

Strategies for instruction, differentiation, and assessment for addressing the cognitive characteristics and needs of young adolescents in grades five through eight. Prerequisite(s): EDPSYCH 3148; EDPSYCH 4152/5152; junior standing. Prerequisite(s) or corequisite(s): ELEMECML 4152/5152 or equivalent. Registration requires full admission to the Teacher Education Program. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Fall and Spring)

ELEMECML 4141/5141. Integrated Activities in Elementary School STEM — 3 hrs.

Pedagogy that facilitates the development of cross-cutting concepts and habits of inquiry within STEM (science, technology, engineering, and mathematics) through authentic, meaningful, and integrative investigations in elementary classrooms. Prerequisite(s): for undergraduate students: junior standing. Prerequisites for graduate students: admission to the Elementary Education Master's Program (MAE) or consent of instructor. (Spring)

ELEMECML 4143/5143. Applications/Content in Elementary Social Studies — 3 hrs.

Applying knowledge of current trends, resources, and content as a means of developing, enriching, and expanding the social studies curriculum. Prerequisite(s): ELEMECML 3164; junior standing. Registration requires full admission to the Teacher Education Program. (Fall)

Course Descriptions

ELEMECML 4150. Elementary Curriculum — 3 hrs.

Recent trends in the curriculum for children in grades K-6. Prerequisite(s) or corequisite(s): full admission to the Teacher Education Program. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Fall and Spring)

ELEMECML 4152/5152. The Nature of Middle School — 3 hrs.

Examination of middle school design, programs, and practices for meeting the needs of young adolescents in grades 5-8, including middle school philosophy, history, community building, interdisciplinary instruction, teaming, exploratory courses, family involvement, and advisory programs. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): EDUC 2402. Registration requires full admission to the Teacher Education Program. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. Students must be available for a 10-hour field experience. (Fall and Spring)

ELEMECML 5153. Early Childhood Curriculum Development and Management — 3 hrs.

Current trends in preschool and primary curriculum with an attention to the interaction of curriculum and classroom environment on learning and development. (Fall and Spring)

ELEMECML 6201. Issues and Trends in Curriculum — 3 hrs.

Current ideas influencing the planning and implementation of curriculum. Prerequisite(s): consent of department. (Variable)

ELEMECML 6205. Technology in Early Childhood Education — 2 hrs.

Examination of policies, expert recommendations, and developmentally appropriate practices for using technology and digital media as learning tools for young children. Prerequisite(s): consent of department. (Variable)

ELEMECML 6214. Recent Research in Early Childhood Education — 3 hrs.

Review of implications of research to gain techniques for improving instruction and programs for young children. Prerequisite(s): ECIE 4151 or equivalent. (Variable)

ELEMECML 6242. Analysis and Improvement of Science Instruction in the Elementary School — 3 hrs.

Application of current research and national standards regarding attitudes, process skills, inquiry, and essential knowledge to the analysis and improvement of science curriculum including the learning cycle, unifying themes, creativity, and differentiated instruction. Prerequisite(s): admission to the Elementary Education Master's Program M.A.E.) or consent of instructor. (Variable)

ELEMECML 6243. Analysis and Improvement of Social Studies Instruction in the Elementary School — 3 hrs.

Assists teacher in exploring historical and current practices in social studies to create new approaches by using available resources and ideas. Prerequisite(s): ELEMECML 4143/5143 or ELEMECML 4150 or consent of department. (Variable)

ELEMECML 6285. Readings in Education — 1-3 hrs. (Fall, Spring, Summer)

ELEMECML 6289. Seminar in Education — 3 hrs.

Special topics listed in Schedule of Classes. May be repeated to a maximum of 6 hours. (Fall, Spring, Summer)

ELEMECML 6297. Practicum — 2-3 hrs. (Fall, Spring, Summer)

ELEMECML 6299. Research — 1-6 hrs.

Prerequisite(s): consent of department. (Fall, Spring, Summer)

ELSPED: Elementary and Special Education Courses

ELSPED 3114. Child Development, Wellness, Literature and Arts Integration — 8 hrs.

This course introduces paraprofessionals to child development by examining the social contexts of human development of elementary-age children and theoretical perspectives that inform understanding of physical, cognitive, and psychosocial development as students interface with culture. Developmentally appropriate methods for integrating children's literature, wellness and physical activities, and visual and performing arts into teaching and learning. Paraprofessionals will learn to plan and teach developmentally appropriate integrated lessons. Prerequisite(s): declared Purple Pathway for Paraeducators majors only. (Fall)

ELSPED 3115. Schooling and Inclusive Education in the 21st Century — 8 hrs.

This course engages teacher candidates in an overview of the social, political, and cultural aspects of education that has contributed to current public policy and law associated with the educational process. Perceptions of difference and an overview of inclusive practice in schools, technology-supported learning, building inclusive school communities, and learning environments will be discussed in today's schools. The course focuses on collaboration in learning, practice as professionals, and advocacy for social justice in educational contexts. Prerequisite(s): declared Purple Pathway for Paraeducators majors only. (Fall)

ELSPED 3116. Child Development and Integrated Arts, Media, and Early Literacy — 8 hrs.

This course introduces paraprofessionals to child development by examining the social contexts of human development of elementary-age children and theoretical perspectives that inform understanding of physical, cognitive, and psychosocial development as students interface with culture. Developmentally appropriate methods of teaching early literacy incorporate various approaches that use the visual and performing arts and children's literature. Paraprofessionals will learn to plan and teach developmentally appropriate lessons integrating the arts, literacy, and diverse media while completing their Level II Benchmark. Prerequisite(s): declared Purple Pathway for Paraeducators majors only. (Fall)

ELSPED 3117. Inclusive Classroom Environments and Learning Assessment — 8 hrs.

Teacher candidates will experience two parallel modules. One module will focus on assessment in regular and special education environments, and the second will focus on building inclusive environments for all children that include a practicum experience. Teacher candidates will study classroom assessment in theory and practice, including the development and appropriate use of formative and summative assessments, assessment quality, grading/communication, standardized testing, and emphasizing the use of data to enhance teaching and learning. Collection and use of educational data to assess and teach diverse learning needs, educational planning and progress monitoring, instructional models, curricular access, mapping, and development will support teaching in inclusive classrooms supporting all students learning. Teacher candidates create

culturally responsive teaching plans by designing and implementing daily lessons in one-to-one settings. Prerequisite(s): declared Purple Pathway for Paraeducators majors only. (Spring)

ELSPED 3118. Learning Motivation, Behavior Support, and Reasoning Skills — 8 hrs.

Teacher candidates will study recent trends in the elementary classroom environment and curriculum for grades K through 6 while examining the influence of cognition and motivational factors on children's learning, motivation, and behavioral supports. The second module of this session focuses on skills needed to organize and manage the culturally sustaining and inclusive classroom environment for instruction in elementary classrooms using individual, small group, and whole group strategies that facilitate productive behaviors for learning. The development of professional behaviors and effective skills for interdisciplinary and family collaboration is experienced by the teacher candidate throughout the program, including problem-solving and strategies for an individual. In a third module, learners engage in mathematics as problem-solving, focusing on whole numbers, rational number concepts, and arithmetic operations with connections to algebraic thinking. Connections to practice are explored with classroom stories and experiences learners encounter in their work as paraeducators. Prerequisite(s): declared Purple Pathway for Paraeducators majors only. (Spring)

ELSPED 4115. Engaging in Integrated Science, Methods of Teaching Science, and Math Reasoning Part 1 — 8 hrs.

This course will focus students on science investigations in life and physical sciences and prepare teacher candidates to teach science in the elementary classroom. It will engage teacher candidates with mathematics as problem-solving, communication, connections, and reasoning and includes data analysis, probability, and algebraic reasoning. Prerequisite(s): declared Purple Pathway for Paraeducators majors only. (Summer)

ELSPED 4116. Engaging in Integrated Science, Methods of Teaching Science, and Math Reasoning Part 2 — 8 hrs.

This course focuses on science investigations in physical and earth sciences, preparing teacher candidates to teach science in the elementary classroom. It will also feature a module on mathematics as problem-solving, communication, connections, and reasoning and includes geometry, measurement, and proportionality. Prerequisite(s): declared Purple Pathway for Paraeducators majors only. (Summer)

ELSPED 4117. Differentiating Literacy and Social Studies for All Students — 8 hrs.

This course focuses on learning about differentiated content reading, writing, and social studies methods of teaching. Students use reading and writing strategies to support learning about social science content and the differentiation process for experiences that support inclusive elementary classrooms. The focus on supporting diverse learners is woven throughout this course. The coursework is linked to grouping, assessment for learning, and strategies for discussions and responses to readings. An integrated unit will be collaboratively designed with specific attention to differentiated literacy and social studies for diverse learners and could be implemented in student teaching. Prerequisite(s): declared Purple Pathway for Paraeducators majors only. (Fall)

ELSPED 4118. Differentiating Math for All Students and Differentiation Practicum — 8 hrs.

Learners will continue their study of differentiated methods of teaching elementary mathematics and engaging in small group teaching practica in diverse classrooms. Teacher candidates will work with children who have IEPs and identify and utilize assessment

instruments and strategies to evaluate the learning needs of K-8 students in a special education environment. This course will encompass the Level III Benchmark where students have the opportunity to teach whole group lessons in a subject area agreed upon between the student and classroom teacher. Prerequisite(s): declared Purple Pathway for Paraeducators majors only; ELSPED 3117. (Fall)

ELSPED 4120. Transitions: Education and Post K-12 — 2 hrs.

This course is taken with Student Teaching. Student teaching is offered on a credit/no credit basis only and provides the teacher candidate the opportunity to experience, in-depth, teaching responsibilities. This course incorporates work with post-school transition programming for individuals with disabilities and will support teacher candidates' understanding of current initiatives and research related to planning and supporting educational (K-12) and post-school transitions for students with disabilities at the intersections of race, gender, gender identity, immigration, sexual orientation, and among other historically marginalized people (i.e., Black, Indigenous, and Youth of Color). This module explores the development and implementation of self-determined careers, post-secondary education opportunities, and inclusive community living for adolescents and adults. Prerequisite(s): declared Purple Pathway for Paraeducators majors only. Corequisite(s): EDUC 4134 or EDUC 4135. (Spring)

ELSPED 4121. Health and Fitness for Elementary Teachers — 2 hrs.

This course is taken with Student Teaching. Student teaching is offered on a credit/no credit basis only and provides the teacher candidate the opportunity to experience, in-depth, teaching responsibilities. This module includes work on methods and materials in health education and physical education appropriate for all children. Prerequisite(s): declared Purple Pathway for Paraeducators majors only. Corequisite(s): EDUC 4134 or EDUC 4135. (Spring)

ENGLISH: English Language and Literature

Courses

ENGLISH 1002. College Writing Basics — 3 hrs.

Prepares students with limited writing experience for ENGLISH 1005; recommended for students who have ACT English scores of 17 or less. Emphasis on reading and writing a variety of increasingly complex expository texts. Attention to developing and organizing ideas, revising, editing, and adapting written discourse for readers. Does not meet the Liberal Arts Core writing requirement; does not count toward minimum hours required for baccalaureate degree. No credit if prior credit in another college writing course. (Variable)

ENGLISH 1005. College Writing and Research — 3 hrs.

Recommended for students who have ACT English and Reading scores of 18-26; students who have ACT English scores of 17 or less are advised to take ENGLISH 1002 first. Emphasis on critical reading and the writing of a variety of texts with attention to audience, purpose, and rhetorical strategies. Attention to integrating research materials with students' critical and personal insights. No credit if prior credit in ENGLISH 2015 or ENGLISH 2120. (Fall and Spring)

ENGLISH 1050. Law and Literature — 3 hrs.

Considerations of how imaginative writers from ancient Greece to the present day have examined the nature, problems, and possibilities of justice. (Variable)

Course Descriptions

ENGLISH 1070. Let's Talk About: (Topic) — 3 hrs.

Students will develop speaking, listening, reading, and group communication skills through the rhetorical study of selected topics. Students will examine how historical and cultural context shapes the language we use, and will analyze a variety of texts to understand various topics. Students will learn how to apply communication principles to a variety of speaking situations. (Variable)

ENGLISH 1120. Literature: (topic) — 3 hrs.

Developing ability to read perceptively and imaginatively by exploring a variety of literary texts in English and/or English translation in multiple genres such as nonfiction, poetry, drama, fiction, and/or film. Attention to understanding and appreciating creative uses of verbal resources and artful representations of human experience. Offered on specific topics listed in the Schedule of Classes. May be repeated for credit under different topics. (Fall and Spring)

ENGLISH 2015. Introduction to Writing Studies — 3 hrs.

Examines writing and research as social and learning technology. Students will devise their own research problem, find and evaluate credible sources, write and revise academic and professional research. (Variable)

ENGLISH 2120. Critical Writing About Literature — 3 hrs.

Study of techniques of various literary forms including poetry, drama, and fiction. Attention to processes and purposes of critical and scholarly writing and to documentation. Introductory course for English Department majors and minors. (Fall and Spring)

ENGLISH 2320. Survey of English Literature from Beginnings to Early Modernity — 3 hrs.

Broad historical, cultural, theoretical, and formal consideration of artful expressions by English speaking peoples from the earliest documentary witnesses through early modernity. (Fall and Spring)

ENGLISH 2340. Survey of Post-1800 English and World Literature — 3 hrs.

Broad historical, cultural, theoretical, and formal consideration of creative literature in English from 1800 through the contemporary period. (Fall and Spring)

ENGLISH 2420. Survey of American Literature — 3 hrs.

Historical, cultural, theoretical, and/or formal study of literature from the geographical area that has become the United States. Genres may include drama, fiction, film, non-fiction, poetry, and other literary and cultural texts. (Fall and Spring)

ENGLISH 2520. Multicultural Literature — 3 hrs.

Selected texts from multicultural literatures of the United States (e.g., African American, Asian American, Hispanic American, Jewish American, Native American); may also include texts from postcolonial literatures. (Fall and Spring)

ENGLISH 2650. Introduction to Film — 3 hrs.

Examination at introductory level of four film genres: narrative, documentary, animated, and experimental; preparation for further work, either individually or academically. (Variable)

ENGLISH 2700. Elements of Creative Writing — 3 hrs.

Attention to basic elements in the writing of poetry, fiction, and creative nonfiction, including the imaginative uses of perspective and voice, narration and setting, story and plot, memory and reflection, dialogue and characterization, image and metaphor, and diction and sound. (Fall and Spring)

ENGLISH 2770. Introduction to Workplace Writing — 3 hrs.

Emphasis on writing in workplace settings: workplace communication responsibilities affecting a variety of audiences, theoretical

perspectives, and lab experiences with industry-standard technologies, writing practices specific to disciplines, attention to the history of the professional communication discipline. (Fall and Spring)

ENGLISH 3110. Environmental Literature — 3 hrs.

A survey of major works about the environment and nature with attention to their social, historical, and scientific impacts, their techniques of writing, and their enduring legacies as both literary achievements and scientific knowledge. (Variable)

ENGLISH 3130. Writing & Healing — 3 hrs.

This class uses personal narrative as a method for critical exploration of trauma and healing. Students do not need to have experienced a traumatic event to benefit from this course, rather the course engages with the study of trauma, traumatology. A range of topics related to writing and healing will be discussed: witnessing, medical narratives, radical listening and the use of critical response process to offer feedback on one another's writing. (Variable)

ENGLISH 3144. Genocide in Writing and Film — 3 hrs.

Exploration of the complex interaction among occurrences of genocide, memory of them (individual, collective, and cultural), and print and cinematic representations of these historical events. Emphasis on how writing and film have shaped audience awareness and understanding of different genocides as well as individual, collective, and cultural responses to them. Prerequisite(s): junior standing. (Same as CAP 3144) (Variable)

ENGLISH 3148. The Holocaust in Literature and Film — 3 hrs.

Examination of responses to the Holocaust in literary texts and visual narratives. Includes issues of survivor testimony and representation, the possibilities and limitations of language and cinematic images, the role of memory, and questions of ethics and trauma. [Same as CAP 3148] (Variable)

ENGLISH 3162. Ireland: Literature, Culture, History — 3 hrs.

Applying various perspectives from the arts, humanities, and social sciences to selected topics and issues in Irish literature, culture, and history; includes visits to notable related sites in Ireland. Generally offered as a Summer Study Abroad course. [Same as CAP 3162] (Even Summers)

ENGLISH 3577. Blues and Jazz in African American Film and Literature — 3 hrs.

African American experiences in Spirituals, Blues, Gospel, Ragtime, Jazz, and Rap/Hip-Hop applied to study of narrative strategies, themes, and ideologies of resistance and survival in African American films and literature. [Same as CAP 3187] (Variable)

ENGLISH 3710/5710. Craft of Creative Nonfiction — 3 hrs.

Written exercises in forms, patterns, and techniques in creative nonfiction. Readings in creative nonfiction with particular attention to narrative structures and strategies. May be taken for 3 hours of undergraduate credit and 3 hours of graduate credit. Prerequisite(s): ENGLISH 2120 or ENGLISH 2700; junior standing. (Fall and Spring)

ENGLISH 3715/5715. Craft of Poetry — 3 hrs.

Development of creative and communication skills via written exercises in forms, patterns, and techniques of poetry. Readings in poetry, especially contemporary poetry, with particular attention to poetic structures and strategies. May be taken for 3 hours undergraduate credit and 3 hours of graduate credit. Prerequisite(s): ENGLISH 2700 or consent of instructor; junior standing. (Fall)

ENGLISH 3725/5725. Craft of Fiction — 3 hrs.

Written exercises in forms, patterns, and techniques of fiction. Readings in fiction with particular attention to narrative structures

and strategies. May be taken for 3 hours of undergraduate credit and 3 hours of graduate credit. Prerequisite(s): ENGLISH 2700 or consent of instructor; junior standing. (Fall and Spring)

ENGLISH 3770. Technical Writing in Applied Sciences — 3 hrs.
Focus on document composition and design to make technical information useful and to aid collaborative, technical decision-making. Includes topics such as rhetorical analysis, user-centered design, usability studies, technical documentation ethics, and/or technology-aided delivery for instruction and presentation. Prerequisite(s): ENGLISH 1005; junior standing. (Variable)

ENGLISH 3772/5772. Technical Writing for Engineering Technologists — 3 hrs.
Instruction and practice in writing definitions and descriptions of technical mechanisms and processes; using style and form appropriate for technical documents ranging from reports and proposals to manuals in the fields of engineering and technology. Attention to analyzing the purposes of specific technical communication projects and their intended audiences in order to design documents that are appropriate and effective within academia, government, business, and industry. Prerequisite(s): ENGLISH 1005; junior standing. (Variable)

ENGLISH 3920/5920. The Teaching of Writing — 3 hrs.
Theory, research, and practice in teaching the composing, revising, and editing of written discourse for various audiences and purposes; attention to development of writing and language abilities, course design, and implementation and evaluation strategies. Prerequisite(s): junior standing. (Fall and Spring)

ENGLISH 3940/5940. Literature for Young Adults — 3 hrs.
Reading and evaluation of literature suitable for adolescents. Prerequisite(s): junior standing. (Fall, Spring, Summer)

ENGLISH 4025/5025. Theory and Practice of Writing — 3 hrs.
Study of writing as an object of theoretical inquiry. Examination and application of diverse perspectives on writing in social organizations. Prerequisite(s): junior standing. (Variable)

ENGLISH 4040/5040. Digital Writing: Theory and Practice — 3 hrs.
Rhetorical analysis and reflective practice related to digitally mediated texts. Use of new media as tools for textual composing. Consideration of how digital communication shapes genres, critical approaches, and the processes and aims of writing. Prerequisite(s): junior standing. (Variable)

ENGLISH 4120/5120. Literature, Gender and Intersectionality — 3 hrs.
Representations of gender and gender orientation in literature; issues surrounding intersectionality of identity; queer studies and feminist criticism. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4140/5140. Literary Criticism — 3 hrs.
Important modern and traditional critical positions and their application to imaginative literature. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4160/5160. Issues in Digital Humanities — 3 hrs.
Explores the intersection of inquiry and creativity in the Humanities--including literature and writing--with the use of digital resources for analysis and presentation; attention to theoretical issues focused on the use of innovative digital tools in traditional Humanities fields; may include hands-on experience with relevant digital applications. Prerequisite(s): junior standing. (Variable)

ENGLISH 4188/5188. Author Seminar: _____ — 3 hrs.

Intensive study of one or more authors, canonical or non-canonical; may focus on lesser-read texts and genres. Topic listed in semester Schedule of Classes. May be repeated for credit on different topics. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4190/5190. Seminar in Literature: _____ — 3 hrs.

Topic listed in Schedule of Classes. May be repeated for credit on different topics. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4192. English Senior Seminar: (topic) — 3 hrs.
This course combines content-area instruction with synthesis of students' work in English and preparation for future endeavors. Seniors are encouraged, but not required, to take one of these classes prior to graduation. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Fall and Spring)

ENGLISH 4198. Independent Study.
(Fall and Spring)

ENGLISH 4310/5310. Old English Language, Literature, and Culture — 3 hrs.
Introduction to the language and culture of Anglo-Saxon England (ca. 500-1100 CE) with reference to its most important document, the folk epic, Beowulf. Prerequisite(s): junior standing. (Variable)

ENGLISH 4315/5315. Early Modern Drama — 3 hrs.
Emphasis on contemporaries of Shakespeare such as Marlowe, Jonson, and Webster; includes selected premodern, Restoration, and 18th- and 19th-century dramas. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4320/5320. English Renaissance — 3 hrs.
Non-dramatic literature of the English Renaissance, 1485-1660. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4325/5325. 18th-Century British Literature — 3 hrs.
Major writers of satire, verse, and prose including Dryden, Swift, Pope, and Johnson. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4330/5330. British Romantic Writers — 3 hrs.
Focus on the poetry and prose of the Lake Poets (Wordsworth and Coleridge) members of the Joseph Johnson circle (Wollstonecraft, Godwin, and Blake), and the Leigh Hunt circle (Byron, Keats, and the Shelleys). Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4335/5335. British Victorian Writers — 3 hrs.
Focus on the poetry and prose of major writers (e.g., Tennyson, Browning, Arnold, and Ruskin), as well as on members of "The Fleshly School of Poetry" (the Pre-Raphaelites and Swinburne) and the Aesthetes (Wilde and his circle). Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4340/5340. British Novel to 1900 — 3 hrs.
Major fiction writers such as Fielding, Sterne, Austen, Dickens, Thackeray, the Brontes, George Eliot, and Hardy. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4345/5345. British Novel Since 1900 — 3 hrs.
Includes novels by writers such as Joseph Conrad, James Joyce, Virginia Woolf, Doris Lessing, Kazuo Ishiguro, Martin Amis, Salman Rushdie and Zadie Smith; includes topics such as modernism,

Course Descriptions

postmodernism and postcolonialism. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4370/5370. Chaucer — 3 hrs.

Poetry of Chaucer; may include other medieval writers.

Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4375/5375. Shakespeare — 3 hrs.

Advanced study of selected plays and poems in historical and biographical contexts as well as in terms of the history of Shakespeare studies. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4380/5380. Milton — 3 hrs.

Milton's major English poetry and prose. Prerequisite(s):

ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4410/5410. Early American Literature — 3 hrs.

Diverse literary and cultural expressions of the American experience from early European contact through the 1820s. Genres include autobiography, religious writing, captivity narrative, poetry, and the novel. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4420/5420. The American Renaissance — 3 hrs.

U.S. writers of the mid-1800s such as Hawthorne, Melville, Emerson, Stowe, Douglass, and Thoreau; attention to literary engagements with controversial reforms including the anti-slavery, labor, and women's movements. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4425/5425. American Realism and Naturalism to WWI — 3 hrs.

Literary selections 1870 to World War I; emphasis on fiction.

Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4430/5430. American Poetry to 1914 — 3 hrs.

Examination of selected elite and popular traditions in American poetry from the colonial period to the stirrings of modernism. Includes extended discussion of Whitman and Dickinson in their literary, cultural, and theoretical contexts. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4445/5445. American Novel Since 1900 — 3 hrs.

Includes novels by writers such as Willa Cather, William Faulkner, Zora Neale Hurston, Kurt Vonnegut, Don DeLillo, Toni Morrison and Jennifer Egan; includes topics such as modernism and postmodernism. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4540/5540. African American Literature — 3 hrs.

Study of African American literature in a variety of forms and genres: Black Vernacular (spirituals, blues, jazz, and folktales), slave narratives, poetry, fiction, drama, film, and autobiography. Prerequisite(s): ENGLISH 2120 or ENGLISH 2520 or consent of instructor; junior standing. (Variable)

ENGLISH 4560/5560. Asian American Literature — 3 hrs.

Texts by North American writers of Asian descent, selected from fiction, drama, poetry, memoirs, oral history, and film. Attention to significant themes, literary innovations, and cultural sensitivity in reading and interpreting ethnic literature. Prerequisite(s): ENGLISH 2120 or ENGLISH 2520 or consent of instructor; junior standing. (Variable)

ENGLISH 4588/5588. World Literature Seminar: (Topic) — 3 hrs.

Study of literary works from across linguistic, cultural and historical boundaries. Attention to significant themes, literary innovations and culturally diverse perspectives. All readings and discussions in English. Specific topic listed in Schedule of Classes; may be repeated for credit on different topics. Prerequisite(s): ENGLISH 2120; junior standing. (Variable)

ENGLISH 4602/5602. Modern and Contemporary Poetry — 3 hrs.

Study of poets and poetry written in English in the twentieth-century and beyond. May focus on formal, thematic, critical and/or historical readings. Specific topic may be listed in semester Schedule of Classes. May be repeated for credit on different topics Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4615/5615. Modern Drama — 3 hrs.

Twentieth-century American, British, and European drama; may include drama from other cultures. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4632/5632. Literary Nonfiction — 3 hrs.

Study of artful texts about actual people, places, and events: selected from memoirs and autobiographies, biographies, histories, journalism, nature, travel, science, and essay writing. Attention to techniques used in creative nonfiction and to issues of accuracy, privacy, and "truth." Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4652/5652. Film and Literature — 3 hrs.

Attention to cinematic adaptations of various literary prose works; aesthetic, cultural, genre, and other factors that influence adapting print to film media. Prerequisite(s): ENGLISH 2120 or CM CORE 1001 or consent of instructor; junior standing. (Variable)

ENGLISH 4660/5660. Film History — 3 hrs.

Survey of artists, historical movements, and styles from silent and sound eras; focus on Classical Hollywood and its alternatives (Soviet, Italian Neorealism, French New Wave, and New German Cinema). Prerequisite(s): ENGLISH 2120 or ENGLISH 2650 or CM CORE 1001 or consent of instructor; junior standing. (Variable)

ENGLISH 4664/5664. Film Theory and Criticism — 3 hrs.

Survey of major approaches to cinema including both the early schools (Realist, Genre Studies, and Auteurist) and the post-structural explosion (Marxist, Psychoanalytic, and Contextual Studies). Prerequisite(s): ENGLISH 2120 or ENGLISH 2650 or CM CORE 1001 or consent of instructor; junior standing. (Variable)

ENGLISH 4668/5668. Issues in International Film: (topic) — 3 hrs.

Intensive study of international cinematic traditions. Instruction in English. Films subtitled or dubbed in English. Topic listed in semester Schedule of Classes. May be repeated for credit on different topics. Prerequisite(s): ENGLISH 2120 or ENGLISH 2650 or CM CORE 1001 or consent of instructor; junior standing. (Variable)

ENGLISH 4672/5672. Electronic Literature — 3 hrs.

Examination and creation of new media literary texts. May include hypertext non-linear narratives, multi-media texts, and digital poetry. Prerequisite(s): CM CORE 1001 or ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4688/5688. Genre Seminar: _____ — 3 hrs.

Intensive study of a genre - for example, novella, long poem, memoir, short fiction, satire, science fiction, film noir. May include attention to the genre's history, representative texts, and/or related theory. May be

repeated for credit on different topics. Prerequisite(s): ENGLISH 2120 or consent of instructor; junior standing. (Variable)

ENGLISH 4720/5720. Studies in Creative Writing: (topic) — 3 hrs.

Intensive study of specialized area or emerging field in Creative Writing. May include attention to issues such as literary publishing, screenwriting, video game narrative, digital poetry, flash fiction. May be repeated for credit on different topics. Prerequisite(s): ENGLISH 2700; junior standing.

ENGLISH 4730/5730. Creative Nonfiction Workshop — 3 hrs.

Advanced peer workshop focusing on refining techniques of writing creative nonfiction and on examples of its varied modes and purposes; attention to voice and narrative strategies. May be repeated for up to 9 hours of undergraduate credit and also up to 9 hours of graduate credit. Prerequisite(s): ENGLISH 3710/5710; junior standing. (Variable)

ENGLISH 4740/5740. Poetry Workshop — 3 hrs.

Advanced peer workshop focusing on refining techniques of poetry writing and on contemporary poetry. May be repeated for up to 9 hours of undergraduate credit and also up to 9 hours of graduate credit. Prerequisite(s): ENGLISH 3715/5715 or consent of instructor; junior standing. (Spring)

ENGLISH 4750/5750. Fiction Workshop — 3 hrs.

Advanced peer workshop focusing on refining techniques of fiction writing and on contemporary fiction. May be repeated for up to 9 hours of undergraduate credit and 9 hours of graduate credit. Prerequisite(s): ENGLISH 3725/5725 or consent of instructor; junior standing. (Variable)

ENGLISH 4755/5755. Creative Writing Practicum: North American Review — 3 hrs.

Students assist with the production of the North American Review, undertaking individual supervised reviewing, editing or design assignments outside the classroom environment. May be repeated for maximum of 6 hours. Prerequisite(s): junior standing. (Variable)

ENGLISH 4760/5760. Advanced Creative Writing Workshop — 3 hrs.

Multi-genre workshop emphasizing peer critique of student writing, with attention to craft, contemporary literature, and the writing life. May be repeated for maximum of 9 hours credit. Prerequisite(s): ENGLISH 4730/5730 or ENGLISH 4740/5740 or ENGLISH 4750/5750; junior standing; consent of department. (Variable)

ENGLISH 4765/5765. Applied Writing: Workplace Communication — 3 hrs.

Examining and designing reports (e.g., investigative, feasibility, progress) and other documents generated in workplace settings; practicing print and digital composing techniques specific to these documents; researching and managing professional document projects. Prerequisite(s) or corequisite(s): MGMT 2080 or ENGLISH 2770 or consent of instructor; junior standing. (Variable)

ENGLISH 4770/5770. Applied Writing: Proposals and Grants — 3 hrs.

Examining and designing persuasive documents in professional settings; analyzing and practicing print and digital composing techniques specific to these documents; includes writing for community organizations (e.g., for fund-raising and development). Prerequisite(s) or corequisite(s): MGMT 2080 or ENGLISH 2770 or consent of instructor; junior standing. (Variable)

ENGLISH 4775/5775. Applied Writing: Specialized Documents — 3 hrs.

Examination and design of descriptive, definitional, and instructional documents generated in workplace settings. Practice of print and digital composing techniques specific to these documents. Crafting and management of usability tests of professional texts. Prerequisite(s) or corequisite(s): MGMT 2080 or ENGLISH 2770 or consent of instructor; junior standing. (Variable)

ENGLISH 4780/5780. The Profession of Editing — 3 hrs.

Examination of editing strategies and responsibilities in scholarly and professional settings. Emphasis on understanding of editing resources, editor roles in document development, and the politics of grammar and style. Prerequisite(s): Prerequisite(s) or corequisite(s): ENGLISH 2770 or ENGLISH 2700 or consent of instructor; junior standing. (Variable)

ENGLISH 4785/5785. Applied Writing: Projects, Grants and Careers — 3 hrs.

Creating workplace communications with clients; practicing print and digital composing strategies specific to these documents; applying academic experience to workplace projects; particular attention to project management. Prerequisite(s) or corequisite(s): ENGLISH 2770 or consent of instructor; junior standing. (Variable)

ENGLISH 4790/5790. Professional Writing Practicum: _____ — 1-6 hrs.

Students undertake individual, supervised writing, editing, and document preparation assignments outside the classroom environment. Offered on specific topics or projects listed in the Schedule of Classes. May be repeated for maximum of 6 hours. Prerequisite(s): junior standing; consent of instructor. (Variable)

ENGLISH 4795/5795. Leadership in Literary Publishing — 3 hrs.

Students build upon the skills and experiences from the ENGLISH 4790/5790 Professional Writing Practicum, learning advanced techniques in the production of the North American Review, including digital and online publishing. Prerequisite(s): ENGLISH 4790/5790; permission of instructor; junior standing. (Fall and Spring)

ENGLISH 4980/5980. The Teaching of English — 3 hrs.

Preparation for teaching secondary English (5-12); teaching of literature and media, reading and writing, and speaking and listening; attention to curriculum design, language development and use, and evaluation. Prerequisite(s): EDPSYCH 3148; MEASRES 3150; junior standing. (Fall and Spring)

ENGLISH 4990/5990. Seminar in Teaching College Writing — 3 hrs.

Preparation to teach introductory college writing; focus on designing syllabi, planning classes, and creating writing assignments. Attention to theoretical issues that inform classroom practice. Prerequisite(s): senior standing; consent of instructor. (Variable)

ENGLISH 5186. Studies in Second Language Learning and Teaching — 3 hrs.

Studies in Second Language Learning and Teaching

ENGLISH 6100. Methods of Graduate Study in English — 3 hrs.

Introduction to problems, techniques, and tools of graduate-level study and research in English; to be completed before 9 hours earned in the M.A. program. Prerequisite(s): written consent of English Graduate Coordinator. (Fall)

Course Descriptions

ENGLISH 6110. Seminar in Criticism and Theory: (Topic) — 3 hrs.

Topics may include Feminist Theory, Post-colonialism, Intersectionality, Contemporary Criticism, and Film Theory. May be repeated on different topics. Prerequisite(s) or corequisite(s): ENGLISH 6100 or WGS 6289 or consent of instructor. (Variable)

ENGLISH 6150. Current Issues in Secondary English Language Arts: [topic] — 3 hrs.

Attention to topics of immediate significance or developing interest within the field of Secondary English Language Arts teaching; topics to be selected in consultation with cohort members; may be repeated for credit by taking different topics. Prerequisite(s): graduate standing; department approval. (Even Summers)

ENGLISH 6188. Seminar in Literature — 3 hrs.

Selected generic, thematic, or critical topic or specific writer. Topic listed in Schedule of Classes. May be repeated for credit. Prerequisite(s) or corequisite(s): ENGLISH 6100. (Variable)

ENGLISH 6299. Research.

Prerequisite(s): consent of department. Prerequisite(s) or corequisite(s): ENGLISH 6100. (Fall, Spring, Summer)

ENGLISH 6300. Seminar in English Literature: (Topic) — 3 hrs.

Topics may include the Medieval Period, the English Renaissance, 19th-century English Literature, and Modern English Literature. May be repeated on different topics. Prerequisite(s) or corequisite(s): ENGLISH 6100. (Variable)

ENGLISH 6400. Seminar in American Literature: (Topic) — 3 hrs.

Topics may include Early American Literature, American Romantic Literature, Issues in American Literature from 1865-1914, Multicultural Literature, and Modern American Literature. May be repeated on different topics. Prerequisite(s) or corequisite(s): ENGLISH 6100. (Variable)

ENGLISH 6510. Seminar in Writing: (Topic) — 3 hrs.

Topics may include Creative Writing, Professional Writing, Rhetoric, Composition Studies, and Publishing. May be repeated on different topics. Prerequisite(s) or corequisite(s): ENGLISH 6100. (Variable)

ENGLISH 6540. Contemporary Literature — 3 hrs.

Literature from 1945 to present; may include poetry, drama, and/or fiction. Specific topic may be listed in Schedule of Classes. May be repeated for credit on different topics. Prerequisite(s) or corequisite(s): ENGLISH 6100. (Variable)

ENGLISH 6720. Graduate Creative Writing Workshop — 3 hrs.

Multi-genre workshop emphasizing peer critique of student writing, with attention to craft, contemporary literature, and the writing life. May be repeated for maximum of 9 hours credit. Prerequisite(s): ENGLISH 4715 or ENGLISH 4725 or written consent of instructor. Prerequisite(s) or corequisite(s): ENGLISH 6100. (Variable)

ENGLISH 6950. Teaching Major Authors: [Topic] — 3 hrs.

Advanced study of instructional resources, activities, and strategies for effective teaching of major authors in secondary English/Language Arts classrooms; topic may focus on one or more writers (e.g., William Shakespeare, Walt Whitman Emily Dickinson) or on several writers associated with a period, region, ethnic tradition, or genre (e.g., Modern American Poets). May be repeated. Prerequisite(s): graduate standing. (Variable)

ENGLISH 6980. Seminar in the Teaching of English — 3 hrs.

Prerequisite(s) or corequisite(s): ENGLISH 6100. (Variable)

ENGR: Engineering

Courses

ENGR 1000. Introduction to Engineering & Professional Practice — 3 hrs.

Students will gain knowledge and understanding of the technical engineering profession. Incorporating team dynamics and a semester based team project. Engineering professional ethics. professionalism (behavior)/integrity/professional duty to society, project-based learning, and engineering code of conduct. Decision making and solution investigations. Recommended to be taken in the first semester in the major, both new and transfer students. (Fall)

ENGR 2080. Statics — 2 hrs.

Evaluation of a force system and principles used in the construction of mechanical and architectural structures. Students will develop an understanding of the basic principles in static analysis of forces in various designs. Prerequisite(s): MATH 1420 or MATH 1150. Prerequisite(s) or corequisite(s): PHYSICS 1511 or PHYSICS 1701. (Fall and Spring)

ENGR 2089. Engineering Seminar: (Topic) — 1-3 hrs.

Comprehensive investigation in engineering that addresses a current topic. May be repeated twice on different topics. Prerequisite(s): ENGR 1000. (Variable)

ENGR 2180. Strength of Materials — 2 hrs.

Material characteristics and strength used in mechanical and civil structures. Students will develop a basic understanding of forces acting on structures and the impact on material characteristics and strength. Topics including: stress and Strain, Poisson's ratio, Properties of areas, Loads on beams, Buckling of columns, Principal Stresses. Prerequisite(s): ENGR 2080; MATH 1420 or MATH 1150. Prerequisite(s) or corequisite(s): PHYSICS 1511 or PHYSICS 1701. (Fall and Spring)

ENGR 4235/5235. Material Transformations & Modeling — 3 hrs.

Material transformation topics such as solidification science, micro- and macro- segregation principles, fluid flow of Newtonian and non-Newtonian liquids, and advanced solid state transformations are covered and directly correlated to material modeling techniques. Prerequisite(s): TECH 2072; TECH 3127; junior standing. (Variable)

ENGR 4500. Senior Design — 3 hrs.

Comprehensive project experience that bridges the gap between academic instruction and real world practice using creative problem solving, estimating, safety, quality, project management techniques, technical knowledge, and ethical professional responsibilities. Cross-disciplinary teams work with industrial partners on the research and development of a specific project. Recommended to be taken last undergraduate semester at UNI as declared major in the Dept of Applied Engineering. Prerequisite(s): ENGLISH 3772/5772; PHIL 1560; senior standing. (Fall and Spring)

ENTR: Entrepreneurship

Courses

ENTR 1010. Overview of Entrepreneurship — 3 hrs.

The course will detail various paths of entrepreneurship available to UNI while introducing students to current entrepreneurial methodology including the entrepreneurial mindset, entrepreneurship, lean startup, design thinking, and Agile. (Fall and Spring)

ENTR 2010. Financials for the Entrepreneurial Enterprise — 3 hrs.

Focused on constructing projected financial statements for a start-up company using market research and industry analysis data given a lack of historical data. Lays foundation for skills and motivations necessary for entrepreneurial success. Prerequisite(s): sophomore standing. (Fall and Spring)

ENTR 3583/5583. Entrepreneurship — 3 hrs.

Students develop a startup business idea within a supportive team environment. Activities include opportunity assessment, new venture strategic planning, creation of a business plan, and presentation of the business pitch. Prerequisite(s): For Wilson College of Business majors: admittance to Wilson College of Business. For non-Wilson College of Business majors: ENTR 2010; junior standing. (Fall and Spring)

ENTR 3586/5586. Entrepreneurial Strategy — 3 hrs.

Students help an existing start-up business in the community scale to the next level. Using engagement and prototyping experiments, teams identify entrepreneurial, innovation or growth opportunities and present a strategic plan to the client and external judges. This is a service-learning designated course. Prerequisite(s): ENTR 3583/5583; junior standing. (Spring)

ENTR 6285. Individual Readings — 1-3 hrs.

May be repeated for a maximum of 4 hours. Prerequisite(s): consent of Department Head and MBA Director. (Fall, Spring, Summer)

ENV SCI: Environmental Science

Courses

ENV SCI 4195. Environmental Science/Health Internship — 1-10 hrs.

Supervised work experience in conjunction with academic project conducted under faculty guidance. May be repeated for maximum of 12 hours. Prerequisite(s): consent of department head. (Fall, Spring, Summer)

FAM SERV: Family Services

Courses

FAM SERV 1010. Human Identity and Relationships — 3 hrs.

Use of social science theory and research to understand psycho-socio-cultural influences in the development of identity and interpersonal relationships. Emphasizes application of current research and theory to facilitate positive individual growth and committed intimate relationships. (Fall, Spring, Summer)

FAM SERV 1020. Family Relationships — 3 hrs.

Understanding contemporary families as they exist in their cultural context. Exploration of how families change and adapt to normative and non-normative challenges. Application of family theory and current research in order to understand family dynamics. (Fall, Spring, Summer)

FAM SERV 1055. Lifespan Development — 3 hrs.

Examination of theory and research contributing to our understanding of how biological, psychological, and social influences shape interindividual differences and intraindividual change across the lifespan. (Fall and Spring)

FAM SERV 1057. Human Relationships and Sexuality — 3 hrs.

Human sexuality as an integration of biological, psychological, and social factors. Topics include developing healthy relationships, sexual orientation, love, sexuality education, sexual decision making, and challenges of sexual health and functioning. (Fall and Spring)

FAM SERV 1140. Exploring Family Diversity — 3 hrs.

Exploration of diverse family/kin networks. Explore similarities and differences with issues such as: family characteristics, life-cycle (e.g., marriage, children), adaptation, and impacts of systemic forces (e.g., oppression). (Variable)

FAM SERV 1210. The Creative Experience — 3 hrs.

In this lively, experiential course, students explore creative persons, products, and places that have had an impact upon the arts and culture. In collaborative teams, students use artistic media to tell the stories of creative persons, products, and places. (Fall and Spring)

FAM SERV 2030. Research Methods in Family Science — 3 hrs.

Introduction to basic research methods used in family science. Quantitative and qualitative research designs, ethical considerations, and evaluating research results. Development of hypotheses based on current research and choice of appropriate methodologies to address them. Prerequisite(s): completion of UNIFI written communication category. (Fall and Spring)

FAM SERV 2054. Dating and Couple Relationships — 3 hrs.

Analysis of interpersonal relationship dynamics and dyadic decision-making using various theoretical perspectives. Study of evidence-based relationship enhancement strategies. (Variable)

FAM SERV 2060. Strategies and Issues in Family Services — 3 hrs.

Survey of prevention and intervention models, methods and professional issues involved in family services. Prerequisite(s): FAM SERV 1020; minimum grade of C- in all prerequisite courses. (Fall and Spring)

FAM SERV 2077. Management of Family Resources — 3 hrs.

Exploration of the management of human and economic resources available to individuals and families through the lifespan from a family science perspective. Emphasis on financial, time, and work/family issues. (Variable)

FAM SERV 2403. The Science and Experience of Human Flourishing — 3 hrs.

Explores the theoretical foundations, methodological approaches, and interventions of Positive Psychology and Positive Developmental Science to study positive emotions, experiences, relationships, meaning, and achievement. Additional topics include happiness, well-being, joy, purpose, optimism, resilience, character strengths, values, flow, wisdom, mindfulness, spirituality, meditation, post-traumatic growth, positive families, positive education, and positive work. [Same as PSYCH 2403] (Variable)

FAM SERV 3111/5111. Families and End of Life Issues — 3 hrs.

Overview of individual, familial, social, and cultural aspects of death, dying and the bereavement process. Topics include final planning, palliative care, funeral rituals, and grief. Prerequisite(s): junior standing. [Same as GERO 3111/5111] (Variable)

FAM SERV 3145/5145. Violence in Intimate Relationships — 3 hrs.

Exploration of theoretical models of violence in intimate and family relationships and examination of the impact of violence on secondary victims. Empirical and programmatic implications for prevention and

Course Descriptions

intervention models are reviewed. Prerequisite(s): junior standing. (Variable)

FAM SERV 3150/5150. Families, Aging, and Wellbeing — 3 hrs. Identification of challenges and normative transitions associated with aging families. Application of developmental and family theories, including theories of aging. Topics will also focus on healthy aging and wellbeing in later life. Prerequisite(s): FAM SERV 1020; FAM SERV 1055 or PSYCH 2202; minimum grade of C- in all prerequisite courses; junior standing. (Fall and Spring)

FAM SERV 3155/5155. Parenting — 3 hrs. Review of parent-child relationships and the dynamic processes of parenting children from conception through young adulthood. Emphasizes developmental and family theory and the diversity of contexts that impact parent-child relationships. Prerequisite(s): FAM SERV 1020; FAM SERV 1055 or PSYCH 2202; minimum grade of C- in all prerequisite courses; junior standing. (Fall and Spring)

FAM SERV 3160/5160. Prevention and Early Intervention Skills — 3 hrs. Exploration and integration of theoretical and evidence-based practice models and skills utilized in family intervention. Professional skills, strategies, tools and ethical issues associated with family assessment and interventions will be examined. Prerequisite(s): junior standing. (Fall and Spring)

FAM SERV 3161/5161. Families, Alzheimer's, and Related Dementias — 3 hrs. Exploration of issues pertaining to Alzheimer's Disease and related dementias. Examination of challenges associated with memory disorders. Strategies for supporting affected individuals and families. Cannot receive credit in both FAM SERV 3161/5161 and GERO 3161/5161. Prerequisite(s): junior standing. (Same as GERO 3161/5161) (Variable)

FAM SERV 3162/5162. Family Policy and Advocacy — 3 hrs. Exploration of legal issues, policies, and laws influencing the well-being of families, and the roles family professionals can play in influencing and informing policy at the local, state, and federal levels. Prerequisite(s): FAM SERV 1020; minimum grade of C- in all prerequisite courses; junior standing. (Variable)

FAM SERV 3176/5176. Consumer Behavior Across the Lifespan — 3 hrs. Analytical approach to the consumption of durables, goods, services, and housing by families across the lifespan. Impact of family on consumption and purchasing decisions. Prerequisite(s): junior standing. (Variable)

FAM SERV 3180/5180. Problems in Family Services — 1-4 hrs. Individual topic areas of in-depth study. Prerequisite(s): junior standing; consent of instructor. (Variable)

FAM SERV 3182/5182. Research in Family Services — 1-6 hrs. Conduct supervised research and/or scholarly project. Prerequisite(s): instructor approved research methods course or research project; junior standing; consent of instructor. (Variable)

FAM SERV 4157/5157. Human Sexuality Education — 3 hrs. Examination of methods for teaching human sexuality in a variety of educational settings; emphasis placed on family life education programs. Students will use theoretical and empirical literature to evaluate programs and to develop sexuality curricula. Prerequisite(s): FAM SERV 1057; minimum grade of C- in all prerequisite courses; junior standing. (Variable)

FAM SERV 4178. Program Development and Implementation — 3 hrs.

An understanding of the principles and practices in planning, development, implementation, and evaluation of program and services focusing on healthy families. Prerequisite(s): FAM SERV 1020; FAM SERV 2060; 3 hours social science research methods; minimum grade of C- in all prerequisite courses; senior standing as a Family Services major or consent of instructor. (Variable)

FAM SERV 4184/5184. Topics in Family Services — 1-3 hrs. Selected topics relating to current issues in Family Services. Topics to be announced in the Schedule of Classes. May be repeated on different topics for maximum of 6 hours. Prerequisite(s): junior standing. (Variable)

FAM SERV 4190. Professional Practice in Family Services — 3 hrs. Professional development course including the following topics: family services as a profession; ethical decisions; diversity in the professional field; issues that emerge in family service agencies; and preparation for internship and entry into employment. Prerequisite(s): FAM SERV 2060; Family Services and Gerontology majors only; minimum grade of C- in all prerequisite courses; consent of instructor. (Fall and Spring)

FAM SERV 4195. Internship in Family Services — 6-9 hrs. Supervised experience in approved practicum situation. Transfer students must complete one full semester in residence before being approved for internship. Stipulate a minimum of 270 hours of internship plus seminar. Prerequisite(s): FAM SERV 4190; minimum grade of C- in all prerequisite courses; minimum 2.40 GPA; senior standing. (Fall, Spring, Summer)

FAM SERV 4198. Independent Study in Family Services. Independent Study in Family Services

FIN: Finance

Courses

FIN 1040. Financial Skills for Smart Living — 3 hrs. This course will prepare students for their own personal financial well-being in life. The course will cover the main topics of personal finance at a broad level including setting goals, budgeting, saving, investing, insurance, credit, loans, making home and automobile purchases, retirement planning, and estate planning. (Fall and Spring)

FIN 3032. International Financial Management — 3 hrs. This course examines the effects of currency value changes on the cash flows and decisions of the firm. The course centers around how multinational corporations identify, assess, and manage risks associated with doing business internationally. Prerequisite(s): ACCT 2120; C- or better in FIN 3130; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Variable)

FIN 3040. Introduction to Personal Wealth Management — 3 hrs. The course provides students the necessary knowledge and skills to enter the financial services industry and meet the education eligibility requirements to become a Certified Financial Planner (CFP). The course will cover two main areas of the CFP Curriculum: 1) General Financial Planning Principles, Professional Conduct, and Regulation; and 2) Risk Management, Insurance, and Employee Benefits Planning. Prerequisite(s): ACCT 2120; C- or better in FIN 3130; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Fall and Spring)

FIN 3050. Risk Management and Insurance — 3 hrs.

Fundamentals of risk and insurance as they apply to financial management. Prerequisite(s): junior standing. (Variable)

FIN 3080. Special Problems — 1-3 hrs.

Credit determined at registration. Prerequisite(s): junior standing; consent of department head. (Variable)

FIN 3110. Principles of Real Estate — 3 hrs.

Introduction to nature of real estate, its value, and related decision analysis. Includes appraisal, investment analysis, location theory, financing, legal characteristics, and development. Prerequisite(s): junior standing. (Fall and Spring)

FIN 3115. Real Estate Law and Brokerage — 3 hrs.

Study of the law affecting real estate and its value, financing, conveyance, contractual obligations, and brokerage, including agency relationships. Prerequisite(s): FIN 3110; junior standing. (Fall and Spring)

FIN 3120. Real Estate Appraisal and Investment — 3 hrs.

Introduction to valuation techniques of real estate. Includes coverage of market analysis, highest and best use analysis, investment analysis and the three approaches to value. Prerequisite(s): FIN 3110; junior standing. (Fall and Spring)

FIN 3125. Real Estate Finance — 3 hrs.

Introduction to concepts, techniques, and instruments integral to the financing of real estate. Includes a discussion of financial markets and institutions related to real estate financing as well as alternative real estate financing. Prerequisite(s): ACCT 2120; C- or better in FIN 3130; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Fall and Spring)

FIN 3130. Corporate Finance — 3 hrs.

Introductory course in corporate finance relating to the role of the finance function within the corporate enterprise. Graduate students completing this course will be required to complete a graded, written case covering financial management and capital budgeting. Prerequisite(s): ACCT 2120; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Fall, Spring, Summer)

FIN 3135. Intermediate Financial Management — 3 hrs.

Examination of the tools, concepts, and theories of financial management. Topics include working capital management, capital budgeting, financial theory, and financial modeling. Prerequisite(s): ACCT 2120; C- or better in FIN 3130; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Fall and Spring)

FIN 3160. Principles of Investments — 3 hrs.

Investment decision making, analysis, and management. Includes descriptive analysis of various investment media, techniques of value analysis, and basic topics in portfolio management. Prerequisite(s): ACCT 2120; C- or better in FIN 3130; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Fall and Spring)

FIN 3170. Commercial Bank Management — 3 hrs.

Study of major decisions and policies involved in management of commercial banks in the context of asset/liability management. Prerequisite(s): ACCT 2120; C- or better in FIN 3130; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Variable)

FIN 3179. Cooperative Education in Finance — 1-3 hrs.

Compensated work experience in conjunction with an academic project conducted under faculty guidance. Offered on credit/no credit basis only. Prerequisite(s): 3.00 cumulative UNI GPA; consent of department head. (Fall, Spring, Summer)

FIN 3210. Financial Modeling and Analytics — 3 hrs.

This course aims to develop the financial modeling and analytical skills used in the application of financial theories to practical problems in fundamental analysis, investment analysis, and portfolio management. Students are expected to learn and use statistical tools in data analysis and predictions. Prerequisite(s): ACCT 2120; C- or better in FIN 3130; FIN 3160; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Variable)

FIN 4040. Principles of Personal Wealth Management — 3 hrs.

The course provides students the necessary knowledge and skills to enter the financial services industry and meet the education eligibility requirements to become a Certified Financial Planner (CFP). The course will cover two main areas of the CFP Curriculum: 1) Tax Planning, and 2) Estate Planning. Prerequisite(s): ACCT 2120; FIN 3040; C- or better in FIN 3130; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Fall and Spring)

FIN 4065/5065. Fixed Income Analysis — 3 hrs.

Principles and tools used to value fixed income securities and manage the risk of bond portfolios. Prerequisite(s): ACCT 2120; C- or better in FIN 3130; FIN 3160; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Spring)

FIN 4145. Advanced Financial Management — 3 hrs.

In-depth examination of the tools, concepts, and theories of financial management. Topics include working capital management, capital budgeting, financial theory, and various appropriate analytical tools. Prerequisite(s): ACCT 2120; ACCT 2130; C- or better in FIN 3130; FIN 3135; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Fall and Spring)

FIN 4150/5150. Securities Analysis — 3 hrs.

Enables students to perform the tasks of a financial analyst in the investment environment. Focuses on equity analysis and portfolio management using different methods to value securities. Prerequisite(s): ACCT 2120; C- or better in FIN 3130; FIN 3160; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Spring)

FIN 4155/5155. Options and Futures — 3 hrs.

Expands upon a basic understanding of financial derivatives learned in the Principles of Investments course to include pricing models and risk management techniques. It explores the workings of the derivative markets for options and futures as well as theoretical pricing aspects and models for those markets. Prerequisite(s): ACCT 2120; C- or better in FIN 3130; FIN 3160; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Fall)

FIN 4190. Advanced Real Estate Cases — 3 hrs.

Students will apply the tools and concepts used in the analysis of real estate assets. Students as teams will analyze actual properties for their development or redevelopment potential and create a plan consistent with their analysis that will be presented to the owner/manager of the property. Prerequisite(s): ACCT 2120; ACCT 2130; FIN 3110; FIN 3115; FIN 3120; FIN 3125; C- or better in FIN 3130; FIN 3135; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Spring)

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FIN 4270. Applications of Personal Wealth Management — 3 hrs.

The course provides students the necessary knowledge and skills to enter the financial services industry and meet the education eligibility requirements to become a Certified Financial Planner (CFP). The course will cover two main areas of the CFP Curriculum: 1) Retirement Planning, and 2) Case Studies and Applications. Prerequisite(s): ACCT 2120; FIN 3040; C- or better in FIN 3130; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421; junior standing. (Fall and Spring)

FIN 4410. CFA Review — 3 hrs.

This course focuses on topics needed to pass the CFA (Chartered Financial Analyst) Level I Exam. Primary areas include Ethics, Quantitative Methods, Economics, Corporate Finance, Equity Analysis and Fixed Income. Prerequisite(s): ACCT 2120; ACCT 2130; C- or better in FIN 3130; FIN 3160; STAT 1772 or equivalent; ECON 1041; ECON 1051; ECON 1011 or MATH 1421. (Spring)

FIN 6266. Financial Management and Markets — 3 hrs.

In-depth examination of tools, concepts, theories, and analysis of managerial finance integrated with case applications. Students expected to apply concepts from managerial finance in analyzing, presenting, and discussing cases at an advanced level. Prerequisite(s): FIN 3130 or equivalent; consent of MBA Director. (Variable)

FIN 6285. Individual Readings — 1-3 hrs.

Directed readings and reports. Prerequisite(s): consent of MBA Director. (Variable)

FIN 6297. Practicum — 2 hrs.

Prerequisite(s): consent of MBA Director. (Variable)

FIN 6299. Research — 1-6 hrs.

Prerequisite(s): consent of MBA Director. (Variable)

FREN: French

Courses

FREN 1001. Introduction to French Language and Culture I — 3 hrs.

Development of listening comprehension, speaking, reading and writing, and cultural literacy. (Fall and Spring)

FREN 1002. Introduction to French Language and Culture II — 3 hrs.

Continuation of FREN 1001. This course (with FREN 1001) satisfy the university foreign language exit requirement. Prerequisite(s): FREN 1001 or equivalents. (Fall and Spring)

FREN 1011. French Communication Practice I — 2 hrs.

Practice (both live and computer-mediated) to reinforce and broaden the development of language and culture. Prerequisite(s) or corequisite(s): FREN 1001 or equivalent. (Fall and Spring)

FREN 1012. French Communication Practice II — 2 hrs.

Oral practice (both live and computer-mediated) to reinforce and broaden the development of language and culture. Prerequisite(s): FREN 1001 or equivalent. (Fall and Spring)

FREN 2001. Intermediate French Language and Culture — 3 hrs.

Thorough review of patterns of French; development of vocabulary and emphasis on listening comprehension, speaking, reading and writing, and cultural literacy. Prerequisite(s): FREN 1002 or equivalent. (Variable)

FREN 2002. Composition — 3 hrs.

Continuation of FREN 2001, leading to free composition. Prerequisite(s): FREN 2001 or equivalent. (Variable)

FREN 2011. Topics in French Conversation: _____ — 3 hrs.

Oral practice (both live and computer-mediated) at the intermediate level to reinforce and broaden the development of language and culture. May be repeated once on different topic. Prerequisite(s) or corequisite(s): FREN 1002 or equivalents. (Variable)

FREN 2012. Advanced Topics in French Conversation: _____ — 3 hrs.

Oral practice (both live and computer-mediated) at the advanced low level with a wide range of subjects, vocabulary, and structures. May be repeated once on different topic. Prerequisite(s): FREN 2001 or equivalent. (Variable)

FREN 2015. French Phonetics — 3 hrs.

Introduction to the sound system of the French language with application to oral speech and conversation. Prerequisite(s): FREN 1001. (Variable)

FREN 2020. Francophone Cross-Cultural Bridges — 3 hrs.

A variety of learning experiences, including cultural readings, lectures, presentations, class discussions, and tours of iconic cultural and historical sites will allow students to examine culture's role in an individual identity and reality formation. Students will explore France through many lenses with the objective of reaching a greater understanding of its cultural, historic, and linguistic diversity, culminating in a cultural comparison between France and the U.S. (Summer)

FREN 3001/5001. Advanced Composition — 3 hrs.

Analysis of major morphological and syntactical structures of the French language, with contrasting grammatical and linguistic approaches to problems of correct usage. Emphasis on successful application of principles. May be repeated once with consent of instructor. Prerequisite(s): FREN 2002; junior standing. (Variable)

FREN 3002. French to English Translation — 3 hrs.

Introduction to translation techniques involved in translation of French into English. Topics selected from varied magazines dealing with business, culture, and general information. Prerequisite(s): FREN 2002 or consent of instructor. (Variable)

FREN 3003/5003. Advanced Conversation — 3 hrs.

Development and improvement of oral fluency through free and guided conversation. May be repeated once with consent of instructor. Prerequisite(s): FREN 2002; FREN 2012; or consent of instructor; junior standing. (Variable)

FREN 3004. Introduction to Literature in French — 3 hrs.

Selected major works of representative French authors. Application of language skills to literary analysis and introduction to critical theories. Prerequisite(s): required French language proficiency or equivalent. (Variable)

FREN 3008. Introduction to French Linguistics — 3 hrs.

An introduction to the main concepts and methods of analysis of linguistics, focusing on French. The main part of the course introduces concepts of sound (phonetics and phonology), word formation (morphology), and sentence structure (syntax). The course also includes an introduction to historical linguistics and a section on the practical application of the study of French linguistics. Prerequisite(s): FREN 3001/5001. (Variable)

FREN 3011/5011. Business French — 3 hrs.

Introduction to current business concepts and practices in French-speaking countries. Reading and interpreting business information, and reading and writing basic business correspondence. Prerequisite(s): FREN 3001/5001 or equivalent; junior standing. (Variable)

FREN 3085/5085. Introduction to Translation — 3 hrs.

Introduction to journalistic and technical translation using varied textual materials (public media, scholarly, and professional texts), from English to French and French to English. May be repeated once. Prerequisite(s): FREN 3001/5001 or equivalent; junior standing. (Variable)

FREN 4005/5005. Stylistics — 3 hrs.

Introduction to stylistic analysis. Development of style in composition through study of excerpts from contemporary French works and literary translation into French. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): FREN 3001/5001 or equivalent. (Variable)

FREN 4014/5014. The World of French Business — 3 hrs.

Study of various aspects of French culture relevant to the business world. Prerequisite(s): FREN 3001/5001 or equivalent; junior standing. (Variable)

FREN 4021/5021. Special Topics in Language and Culture — 3 hrs.

Special topics and aspects of the discipline. May be repeated on different topic. Prerequisite(s): FREN 3001/5001; FREN 3004; or equivalents; junior standing. (Variable)

FREN 4022/5022. Special Topics in French Literature — 3 hrs.

Special topics and aspects of the discipline. May be repeated on different topic. Prerequisite(s): FREN 3001/5001; FREN 3004; or equivalents; junior standing. (Variable)

FREN 4024/5024. French Civilization — 3 hrs.

Aspects of French history and culture up to the 19th Century. Prerequisite(s): FREN 3001/5001 or equivalent; junior standing. (Variable)

FREN 4025/5025. Contemporary France — 3 hrs.

Survey of recent developments in France: its people, customs and way of life, institutions, geography, economy, and art. May be repeated once through study abroad. Prerequisite(s): FREN 3001/5001 or equivalent; junior standing. (Variable)

FREN 4028/5028. Special Topics in Francophone Literature — 3 hrs.

Special topics and aspects of the discipline. May be repeated on different topic. Prerequisite(s): FREN 3001/5001; FREN 3004; or equivalents; junior standing. (Variable)

FREN 4030. Francophone Cultures — 3 hrs.

Cultures of the greater Francophone world in Africa, the Americas, Europe, and Oceania as shaped by geography and history, and as revealed in their arts, sports, customs, traditions, and economic, social, and political institutions. Prerequisite(s): FREN 3001/5001. (Variable)

FREN 4044/5044. Special Topics in French Cinema — 3 hrs.

Study of French films. Various topics in the areas of history, culture, cinematic genres, directors and screen adaptations of literary works. Prerequisite(s): FREN 3001/5001 or equivalent; junior standing. (Variable)

FREN 4081/5081. Advanced Business French — 3 hrs.

Study of current business concepts and practices in French-speaking countries through systematic analysis of business-related topics based on authentic reading materials and business communications.

Prerequisite(s): FREN 3011/5011 or consent of instructor; junior standing. (Variable)

FREN 4091. Practicum in Teaching French — 1-3 hrs.

Participants acquire knowledge of foreign language methodologies through practical applications, including lesson planning, class observations, materials development, and technology integration. Required for students in second language acquisition and foreign-language teacher education programs. Prerequisite(s): FREN 3001/5001. (Variable)

FREN 5186. Studies in French Methodology — 1 hr.

Studies in French Methodology

FREN 6001. Advanced Composition and Stylistics — 3 hrs.

Study of stylistic devices; examination of principal morphological, syntactical, and semantic problems. (Variable)

FREN 6003. Structure of French — 3 hrs.

Phonology, morphology, and syntax of current French, stressing areas of French structure which cause problems for native speakers of English. (Variable)

FREN 6025. Translation Strategies — 3 hrs.

Study of translation theories and practical applications of translation techniques (including newer technologies) with a variety of texts drawn from daily life, literary, commercial, legal, and other professional sources. (Variable)

FREN 6070. French Literature in Review I — 3 hrs.

Chronological review of major periods; works and writers of French literature from the Middle Ages through the Age of Enlightenment. Focus on development of each literary genre. Primarily for students planning to take M.A. comprehensives in French. Prerequisite(s): graduate standing or consent of instructor. (Variable)

FREN 6071. French Literature in Review II — 3 hrs.

Chronological review of major periods; works and writers of French literature from 19th century to present. Focus on development of each literary genre. Prerequisite(s): graduate standing or consent of instructor. (Variable)

GEOG: Geography Courses

GEOG 1110. Global Geography — 3 hrs.

Global geography is the study of people, places and the connections between them. How people give meaning and character to different places, and how the growing level of interdependence between those places shape and reshape the cultural, political, economic, and environmental nature of individual societies and global society as a whole. (Fall, Spring, Summer)

GEOG 1120. Peoples, Cultures, and Environments — 3 hrs.

Spatial perspectives on the dynamics of socio-cultural and human-environmental interactions, including processes, patterns, and systems examined from local to global scales of analysis. Through these perspectives, the course examines global human diversity and commonality via topics that include globalization, culture, population, sustainability and economies, while incorporating theories, findings, and works that illuminate the human condition. (Fall, Spring, Summer)

GEOG 1210. Planet Earth — 3 hrs.

We live in a swiftly changing world characterized by rapidly changing climates, shifting landscapes, growing human populations with degrading soil and water resources. Now, more than ever, it is essential to understand how Earth systems work, how they affect

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our livelihoods, and how we are altering them. The course has three objectives: 1) to provide a basic understanding of the most important processes shaping the Earth's physical systems; 2) to convince you of the dynamic nature of these systems, in part because of human activity; and 3) to help you understand the environmental systems of particular places so that you might use this background to explore these further and see how they change over time. Many students take this course to fulfill a LAC requirement. Others use it as a gateway to majors and careers in Geography, Natural Resources Management, and Environmental Science. (Fall, Spring, Summer)

GEOG 1211. Planet Earth Laboratory — 1 hr.

We live in a swiftly changing world characterized by rapidly changing climates, shifting landscapes, growing human populations with degrading soil and water resources. Now, more than ever, it is essential to understand how Earth systems work, how they affect our livelihoods, and how we are altering them. This laboratory course compliments and enhances students understanding of the content and scientific reasoning skills presented in GEOG 1210 through a series of applied laboratory activities. Prerequisite(s) or corequisite(s): GEOG 1210. (Fall and Spring)

GEOG 1310. Digital Earth — 3 hrs.

Survey of maps and map communication principles with a focus on digital maps and dynamic mapping applications. Emphasis on reading, analysis, and interpretation of information on maps. (Odd Falls)

GEOG 2120. North American Cities — 3 hrs.

Principles of urban geography, including urban growth and change, structure and dynamics, and analysis and planning in North American cities. (Fall)

GEOG 2210. Modern Climate Change: Evidence and Predictions — 3 hrs.

Brief overview of the climate system. Examination of the evidence for recent global and regional climate changes. Analysis of the importance of greenhouse gases, solar changes, aerosols, and cloud changes as contributors to climate changes. (Even Falls)

GEOG 2240. Natural Hazards and Disasters — 3 hrs.

Examination of causes, physical processes, and geographic distribution of natural hazards. Discussion of prediction methods and social impact of such disasters. (Odd Springs)

GEOG 2250. Nature-Society Relations — 3 hrs.

There is no relationship more fundamental to society than the one we have with our natural environment. This introductory course will explore human society's connection to food systems, climate change, urbanization and extinctions, while connecting local-scale phenomena with regional-, national-, and global-scale processes. (Variable)

GEOG 2260. Environmental Resource Management — 3 hrs.

This course provides an overview of issues and training in the accepted approaches to contemporary environmental management and sustainability, both in general and in the context of the state of Iowa. The objective of this course is to provide the theoretical background for critical analysis of resource management issues and applied problems in both for-profit and non-profit contexts, including but not limited to, government agencies, public park areas, public and private conservancies, and corporate environmental management contexts. Prerequisite(s): GEOG 1210 or EARTHSCI 1300; BIOL 2051; or consent of instructor. (Fall)

GEOG 2300. World Prehistory and the Rise of Civilizations — 3 hrs.

Archaeology of human evolution from the appearance of Homo sapiens to earth's earliest societies with an emphasis on cultural

development of complex civilizations in the Middle East, Americas, Europe, Asia, and Africa. [Same as ANTH 2300] (Fall and Spring)

GEOG 2320. Drones for Mapping and Communication — 3 hrs.

This course will provide an overview of aspects related to unmanned aerial systems (UAS) operations for both environmental mapping and communication purposes. Topics will include: Basic aviation knowledge, current UAS regulations, flight control systems, UAS platforms/sensors, basic aerial mapping techniques, and aerial photography/videography for communications. Students will engage in classroom and field exercises and will gain hands-on experience with data collection using a variety of UAS. Field trips are required. (Fall)

GEOG 2350. Intro to Environmental Data Analysis — 3 hrs.

Scientific computing is becoming a core component of many earth and environmental sciences. This course focuses on the application scientific computing principles to analyze and visualize environmental data. Analysis tasks will range from basic data processing to full statistical analysis. For this course we will be using Python, a widely used, open source, general-purpose, and high-level programming language. It is easy to read and easy to learn. Python is increasingly being used for data analysis in scientific research for everything from basic statistics to complex computer models. No prior programming skills/experience are needed. (Odd Springs)

GEOG 2410. Geographic Information Systems I — 3 hrs.

Fundamental concepts and operations of Geographic Information Systems with applications. Lectures are supplemented by computer-based projects. Lecture, 2 periods; lab 2 periods. (Fall and Spring)

GEOG 3110. Economic Geography — 3 hrs.

Analysis of changing spatial structure of the economy and inter-relationships between geography and economics within a global perspective. (Odd Springs)

GEOG 3179. Cooperative Education in Geography — 1-3 hrs.

Practical experience in business, industry, or a government agency. May be repeated for maximum of 3 hours. Offered on credit/no credit basis only. Prerequisite(s): 15 hours of geography at UNI; cumulative GPA of 2.50; junior standing; consent of department. (Fall, Spring, Summer)

GEOG 3186. Studies in (Variable Topics).

Studies in (Variable Topics) (Variable)

GEOG 3220. Environmental Geography: Variable Topic — 3 hrs.

Study of geographic dimension of human-environmental interaction. Historical perspectives on Earth's environmental problems, the place of humankind in ecological systems, and issues of sustainable development. May be repeated on different topics. Prerequisite(s): GEOG 1120 or GEOG 1210 or GEOG 2210 or GEOG 1110 or consent of instructor. (Variable)

GEOG 3580. Readings in Geography — 1-3 hrs.

Maximum of 3 hours can be applied toward Geography major. Prerequisite(s): consent of department head. (Fall, Spring, Summer)

GEOG 3598. Research Experience in Geography — 1-3 hrs.

Conducting of supervised research or scholarly project. May be repeated for maximum of 6 hours. Prerequisite(s): 15 hours of geography; consent of instructor. (Fall, Spring, Summer)

GEOG 3778/5778. Spatial Data Analysis — 3 hrs.

Analysis and interpretation of spatial point processes, area, geostatistical and spatial interaction data. Applications to geographic data in real estate, biology, environmental and agricultural sciences using S-Plus software. Prerequisite(s): STAT 1774 or STAT 1772 or

SOC SCI 2020; junior standing. (Same as STAT 3778/5778) (Odd Springs)

GEOG 4110/5110. Cultural Geography — 3 hrs.

Examination of the nature and dynamics of culture relative to issues and landscapes that arise out of the interactions between people and their physical and human environments. Special emphasis on socio-economic development and the process of globalization. Prerequisite(s): junior standing. (Odd Springs)

GEOG 4115/5115. Climate Change and Social Justice — 3 hrs.

This is a participatory action research focused class where students engage in research on climate change social justice issues in and around Iowa. Prerequisite(s): junior standing. (Odd Falls)

GEOG 4120/5120. Demography and Population Geography — 3 hrs.

Geographic perspectives on demography and migration in a changing world. Patterns, processes, and models of population structure, change, distribution, and movement. Relationships with complex spatial mosaic of socioeconomic and environmental systems. Elements of population analysis and geodemographics. Prerequisite(s): junior standing. (Even Springs)

GEOG 4150/5150. Regional Geography: (Variable Topic) — 3 hrs.

Study of geography of selected region including evolution and dynamics of its cultural, social, economic, political, and environmental dimensions. May be repeated on different regions. Prerequisite(s): junior standing. (Variable)

GEOG 4170/5170. Climate Action Planning — 3 hrs.

An introduction to the urban planning process, with a focus on climate action planning. The course includes a discussion of climate action best practices from cities around the world, as well as opportunities for actual community engagement in Iowa cities and towns to develop strategies for greenhouse gas reduction and other practices to enhance sustainability. Prerequisite(s): junior standing. (Even Springs)

GEOG 4220/5220. Soils and Landscapes — 3 hrs.

Study of soils as result of inter-relationships among climates, ecosystems, and landscapes of the world. Soil formation, distribution, properties, and classification, and applications of soil geography to other disciplines. Lecture, 2 periods; lab/field trips, 2 periods. Prerequisite(s): EARTHSCI 1300 or GEOG 1210; junior standing. (Odd Falls)

GEOG 4230/5230. Rivers — 3 hrs.

Runoff processes, stream discharge, sediment transport, drainage basins, properties of alluvium, channel changes, floodplains, terraces, human adjustments to floods, human impacts on rivers, and river water quality. Prerequisite(s): junior standing. (Even Springs)

GEOG 4240/5240. The Ice Age — 3 hrs.

Study of earth systems, long-term environmental change, and methods used to detect such change. Evidence of environmental changes resulting from glacial-interglacial conditions and how large scale changes in Earth climate systems affect environmental systems. Prerequisite(s): GEOG 1210; GEOG 2210; EARTHSCI 1300 or consent of instructor; junior standing. (Even Falls)

GEOG 4250/5250. Laboratory Methods in Environmental Geography — 3 hrs.

Intended to make students proficient in the common laboratory techniques used for analyzing soil and sediments for environmental geography. Prerequisite(s): EARTHSCI 1300 or GEOG 1210; junior standing. (Even Springs)

GEOG 4270/5270. Science of Scenery — 3 hrs.

Exploring the core concepts of geomorphology and biogeography in the context of the landscapes of North American national parks and protected places. Prerequisite(s): GEOG 1210 or EARTHSCI 1300; junior standing. (Variable)

GEOG 4310/5310. GIS Applications: (Variable Topic) — 3 hrs.

GIS techniques to conduct spatial analysis of social and environmental topics. Focus on an individual research project and associated functional capabilities of GIS packages. Variable social/environmental focus. May be taken more than once for credit. Prerequisite(s): GEOG 2410; junior standing. (Spring)

GEOG 4320/5320. Geographic Information Systems II — 3 hrs.

Technical issues in GIS and ways of implementing GIS as a decision support system for solving problems of a spatial nature in selected fields. Lecture, 2 periods; lab, 2 periods. Prerequisite(s): GEOG 2410 or consent of instructor; junior standing. (Spring)

GEOG 4335/5335. Web Mapping and Data Visualization — 3 hrs.

An applied course examining state of the art web mapping and data visualization techniques emphasizing spatial and temporal data. Students will gain hands on experience utilizing a variety of cloud-based technologies and simple scripting techniques to build web mapping and data visualization applications. Prior programming experience is not required. Prerequisite(s): GEOG 1310 or GEOG 2410 or consent of instructor; junior standing. (Odd Falls)

GEOG 4350/5350. Global Positioning System Field Survey Methods — 3 hrs.

Utilization of global positioning system (GPS) to collect, process, and analyze geographic data. GPS theory and techniques including field survey experiences. Applications within an integrated geographic information system (GIS) framework. Prerequisite(s): junior standing. (Fall)

GEOG 4360/5360. Cartographic Design — 3 hrs.

Application of cartographic principles and techniques in compiling thematic maps. Emphasis on cartographic production including the use of map projections, data characterization and symbolization, graphing, color use, typographic and design elements, and thematic mapping techniques. Prerequisite(s): junior standing. (Even Falls)

GEOG 4370/5370. Remote Sensing of the Environment — 3 hrs.

Examination of physical basis of Remote Sensing and various sensing systems available for monitoring, mapping, measuring, and identifying phenomena on the earth's surface. Emphasis on non-photographic systems operating within the electromagnetic continuum. Various modes of multispectral scanning. Lecture, 2 periods; lab, 2 periods. Prerequisite(s): junior standing. (Odd Falls)

GEOG 4380/5380. From Drones to Satellites: Next-Generation Mapping Using Imagery — 3 hrs.

This course introduces students to theory and methods of collecting remotely sensed images using drones, airplanes, and satellites, including flight planning, sensor selection, and photogrammetry. Prerequisite(s): GEOG 2320; GEOG 4370/5370; junior standing; or permission from the instructor. (Variable)

GEOG 4385/5385. Advanced Unmanned Aerial Systems Mapping — 3 hrs.

This class will provide an in-depth training on the uses of unmanned aerial systems (UAS) for environmental mapping. Topics will include: photogrammetry, advanced remote sensing, geospatial data accuracy, aerial photography survey design, and geospatial data processing/post-processing. Students will engage in classroom and field exercises and will gain hands-on experience with data collection using a variety of

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UAS. Field trips are required. Prerequisite(s): GEOG 4370/5370 or consent of instructor; junior standing. (Spring)

GEOG 4390/5390. GIS Programming — 3 hrs.

An applied course in Python programming for ArcGIS automation and customization. Students will gain hands-on experience with ArcGIS Geoprocessing framework, basic programming concepts, Python fundamentals, and writing Python scripts for geoprocessing and map automation. Prior programming experience is not required. Prerequisite(s): GEOG 2410 or consent of instructor; junior standing. (Even Falls)

GEOG 4530. Geography for Social Science Education — 3 hrs.

This course is intended for secondary social science teaching majors to focus on geography. It will cover the geographic approach, foundational knowledge in geography (human, physical, and geospatial), the use of online GIS, and the application of this material in the K-12 education setting. Prerequisite(s): GEOG 1110 or GEOG 1120; GEOG 1210. (Spring)

GEOG 4550. Senior Seminar in Geography — 3 hrs.

Examination of specific topics through application of geographic principles and analysis. Discussion of readings during first half semester and student presentations during second half semester. Research paper required. Prerequisite(s): 21 hours of geography. (Odd Falls)

GEOG 4560. Professional Seminar — 1 hr.

Issues and opportunities involved in transition from undergraduate to professional life. Design and completion of essential documents including resume, professional portfolio, graduate program applications, and standardized examinations. Prerequisite(s): junior standing. (Even Springs)

GEOG 4570/5570. Sustainability and Geographic Leadership — 3 hrs.

Sustainability and Geographic Leadership empowers students to become professional geographers and community leaders, applying the geographic perspective to enhance career readiness and improve long-term human-environment interactions in places and regions. Prerequisite(s): junior standing. (Spring)

GEOG 6000. Graduate Colloquium — 1 hr.

Weekly presentations by a faculty member, visitor, or student. May be repeated for maximum of 2 hours. (Fall and Spring)

GEOG 6010. Geographic Research Methods — 3 hrs.

The purpose of this course is to develop an appreciation for the process of research as practiced by contemporary professional geographers. Topics covered include formulating research problems, reviewing and critiquing published literature, developing and executing a research design, institutional review boards, funding programs, proposal writing and application, and completing a research project. (Fall)

GEOG 6285. Readings in Geography — 1-3 hrs.

May be repeated. Prerequisite(s): consent of department head. (Fall, Spring, Summer)

GEOG 6286. Studies In: (Variable Topics).

Studies In: (Variable Topics) (Variable)

GEOG 6299. Research.

Prerequisite(s): consent of department. (Fall, Spring, Summer)

GEOG 6550. Seminar — 3 hrs.

Topics listed in Schedule of Classes. May be repeated on different topics. (Fall)

GEOG 6598. Directed Research Project — 3 hrs.

Research leading to research paper for students in the non-thesis option. Prerequisite(s): GEOG 6010. (Fall, Spring, Summer)

GER: German

Courses

GER 1001. German Language and Culture I — 3 hrs.

For beginners. Introduction to language and cultures of the German-speaking peoples. Not recommended for students who have had two or more years of German in high school or equivalent. (Fall and Spring)

GER 1002. German Language and Culture II — 3 hrs.

Continuation of GER 1001. Not recommended for students who have had three or more years of German in high school or equivalent. Prerequisite(s): GER 1001 or equivalent. (Fall and Spring)

GER 1011. German Communication Practice I — 2 hrs.

Practice of basic language skills through guided exercises, including use of lab components. Not recommended for students who have had two or more years of German in high school or equivalent. Corequisite(s): GER 1001. (Fall and Spring)

GER 1012. German Communication Practice II — 2 hrs.

Continuation of GER 1001 and GER 1011. Not recommended for students who have had three or more years of German in high school or equivalent. Prerequisite(s): GER 1001; GER 1011; or equivalents. Corequisite(s): GER 1002. (Fall and Spring)

GER 1120. Introduction to German Literature in Translation — 3 hrs.

Understanding and appreciating basic terms of German language literatures in English translation through close reading of literary texts. (Variable)

GER 2001. German Language and Culture III — 3 hrs.

Intermediate language course. Continued development of language skills. Review of essential German grammar. Discussion of cultural issues related to German-speaking countries. Prerequisite(s): GER 1002; GER 1012; or equivalents. (Variable)

GER 2002. German Language and Culture IV — 3 hrs.

Continuation of GER 2001 and GER 2011. Intermediate language course. Continued development of language skills. Review and expansion of vocabulary and grammatical structures. Discussion of cultural issues related to German-speaking countries. Prerequisite(s): GER 2001; GER 2011; or equivalents. (Variable)

GER 2011. German Communication Practice III — 2 hrs.

Practice of language skills at intermediate level, including use of lab components. Prerequisite(s): GER 1002; GER 1012; or equivalents. (Variable)

GER 2012. German Communication Practice IV — 2 hrs.

Continuation of GER 2001 and GER 2011. Practice of language skills at intermediate level, including use of lab components. Prerequisite(s): GER 2001; GER 2011; or equivalents. (Variable)

GER 3001/5001. German Writing Practice — 3 hrs.

Development of writing skills and grammar review. Prerequisite(s): GER 2002; GER 2012; junior standing. (Variable)

GER 3003/5003. German Conversation — 3 hrs.

Development of oral fluency through systematically-guided conversations on civilization topics and free conversation on topics of current interest. Structural, morphological, and phonetic exercises

designed to meet needs of individual participant. Prerequisite(s): GER 2002; GER 2012; or equivalents; junior standing. (Variable)

GER 3004/5004. Introduction to German Literature — 3 hrs.

Selected major works of representative German authors. Application of language skills to literary analysis and introduction to critical theories. Prerequisite(s): GER 2002; GER 2012; or equivalents; junior standing. (Variable)

GER 3034. German Literature and Cinema — 3 hrs.

Study of cinematic adaptations of various literary works, and an introduction to major achievements in German cinematic history. Prerequisite(s): GER 3001/5001 or GER 3003/5003 or equivalents. (Variable)

GER 3036. Current Events in the German-Language Media — 3 hrs.

Discussion and critical analysis of political, social, economic, and cultural developments and trends in contemporary German-speaking countries as reflected in a variety of media. Development of German language skills through listening, reading, speaking, and writing. Prerequisite(s): GER 3001/5001 or GER 3003/5003. (Variable)

GER 3334. Intercultural Perspectives — 3 hrs.

An interdisciplinary approach for understanding intercultural perspectives and developing effective intercultural skills for meeting the challenges of today's interconnectedness of societies and cultures both locally and globally. (Same as CAP 3165 and TESOL 3565) (Variable)

GER 4021/5021. Special Topics in Language and Culture — 3 hrs.

Special topics and aspects of the discipline. May be repeated on different topic. Prerequisite(s): GER 3001/5001; GER 3004/5004; or equivalents; junior standing. (Variable)

GER 4030. Folklore and Myths in German Literature — 3 hrs.

Literary study of forms and functions of folklore and myths in German language literature. Forms, functions, and influences on culture over time. Prerequisite(s): GER 3001/5001 or GER 3003/5003. (Variable)

GER 4050/5050. Contemporary Germany and Austria — 3 hrs.

In-depth analysis of political and social developments and cultural trends of post-war Germany and Austria. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): GER 3001/5001 or equivalent. (Variable)

GER 4085/5085. Introduction to Translation — 3 hrs.

Introduction to journalistic and technical translation using varied textual materials (public media, scholarly, and professional texts), from English to German and German to English. May be repeated once. Prerequisite(s): GER 3001/5001 or equivalent; junior standing. (Variable)

GER 4091. Practicum in Teaching German — 1-4 hrs.

Participants acquire knowledge of foreign language methodologies through practical applications, including lesson planning, class observations, materials development, and technology integration. Required for students in second language acquisition and foreign-language teacher education programs. Prerequisite(s): GER 3001/5001. Prerequisite(s) or corequisite(s): LANG 4090. (Variable)

GERO: Gerontology

Courses

GERO 3111/5111. Families and End of Life Issues — 3 hrs.

Overview of individual, familial, social, and cultural aspects of death, dying and the bereavement process. Topics include final planning, palliative care, funeral rituals, and grief. Prerequisite(s): junior standing. [Same as FAM SERV 3111/5111] (Variable)

GERO 3161/5161. Families, Alzheimer's, and Related Dementias — 3 hrs.

Exploration of issues pertaining to Alzheimer's Disease and related dementias. Examination of challenges associated with memory disorders. Strategies for supporting affected individuals and families. Cannot receive credit in both FAM SERV 3161/5161 and GERO 3161/5161. Prerequisite(s): junior standing. [Same as FAM SERV 3161/5161] (Variable)

GERO 3192/5192. Research in Gerontology — 1-3 hrs.

Conduct supervised research and/or scholarly project. Prerequisite(s): research methods course; junior standing; consent of instructor. (Variable)

GERO 3194/5194. Problems in Gerontology — 1-4 hrs.

Individual topic areas of in-depth study. Prerequisite(s): junior standing; consent of instructor. (Variable)

GERO 4170/5170. Long Term Care Administration — 3 hrs.

Study of long term care administration including social services, dietary, legal aspects; nursing; environmental services, activities/community resources; business administration; administrative organization, and human resource management. Prerequisite(s): Gerontology; LTC administration majors only; junior standing; department approval. (Odd Springs)

GERO 4184/5184. Topics in Gerontology — 1-3 hrs.

Selected topics relating to current issues in gerontology. Topics to be announced in the Schedule of Classes. May be repeated on different topics for maximum of 6 hours. Prerequisite(s): junior standing. (Variable)

GERO 4193. Internship Seminar — 1 hr.

Process seminar to focus on and maximize student learning from their internship experiences and aid in their development of professional practices. May be repeated for maximum of 2 hours. Corequisite(s): GERO 4195 or HPE 4768 or SOC 3100/5100. (Variable)

GERO 4195. Internship in Gerontology.

Supervised experience in approved work situation. Transfer students must complete one full semester in residence before being approved for internship.

Sec. 1. Social Sciences track - 3 hrs.

Sec. 2. Long Term Care track - 1-12 hrs. May be repeated for maximum of 12 hours. Prerequisite(s): consent of instructor. (Variable)

GERO 4198. Independent Study in Gerontology — 1-6 hrs.

(Variable)

HIST: History

Courses

HIST 1010. Introduction to Historical Skills — 3 hrs.

This course is designed to introduce students to methods and practices of historical research, analysis and writing. It is a discussion-based and collaborative seminar in which students work on and demonstrate the

Course Descriptions

acquisition of historical skills by producing an original research paper using primary and secondary sources. History majors should take this class immediately after the major is declared. (Fall and Spring)

HIST 1011. Field Experience: Public History — 1 hr.

Students spend 15 hours working on a public history project in a local institution. This seminar provides opportunities for orientation, discussion, and introduction to professions related to the major. History majors should take this class immediately after the major is declared. (Fall and Spring)

HIST 1023. History of the United States — 3 hrs.

Study of key individuals and major political, economic, social, and cultural events that have shaped U.S. history. This is a Liberal Arts Core course and will NOT fulfill History major requirements. (United States History course) (Variable)

HIST 1110. United States History to the Civil War and Emancipation — 3 hrs.

This course introduces students to major political, economic, social and cultural developments and conflicts in American history through the Civil War and the end of slavery. Particular attention will be paid to roles of women and men from diverse racial, ethnic and class backgrounds in shaping history. (United States History course) (Fall and Spring)

HIST 1120. United States History since the Civil War and Emancipation — 3 hrs.

This course introduces students to major political, economic, social and cultural developments and conflicts in American history from the end of slavery to the present. Particular attention will be paid to roles of women and men from diverse racial, ethnic and class backgrounds in shaping history. (United States History course) (Fall and Spring)

HIST 1210. Making the Modern World — 3 hrs.

A survey of global history from 1800 to the present, examining the events and processes that shaped the contemporary world. (World History course) (Fall and Spring)

HIST 2011. Engaging Sources: (Topic) — 3 hrs.

This class explores a particular genre of created source in its historical and cultural context. Students conduct and present original research, contribute to an exhibit or digital archive, and create or design their own example of the genre. May be repeated on different topics. (Fall and Spring)

HIST 2020. Health in History: (Topic) — 3 hrs.

An exploration of health in history, considering the ways wellness and illness and the values and ethics connected to health shaped historical societies and cultures, policy, and economics. May be repeated with different topics. (Fall and Spring)

HIST 2210. Problems & Perspectives in Global History: (Topic) — 3 hrs.

A thematic exploration of global history, emphasizing diversity and the comparative study of the human condition in historical perspective. May be repeated on different topics. (Fall and Spring)

HIST 2310. From Mesopotamia to the Middle Ages: The Premodern West — 3 hrs.

The evolution of Western civilization from ancient Mesopotamia and Egypt to the eve of the Renaissance, encompassing government, economics, art, social relationships, intellectual life, and religious beliefs and practices. (Variable)

HIST 2320. The Modern West: Technology, Science, & Culture — 3 hrs.

An exploration of the development of modern Europe, with emphasis on industry, science, and technology and their impact on culture, religion, social relations, politics, governmental institutions, and warfare. (Variable)

HIST 3010. Readings in History — 1-3 hrs.

Student will choose one of the following areas: (1) Ancient; (2) Medieval; (3) English; (4) French; (5) German; (6) Russian; (7) United States; (8) Latin American; or (9) Asian (India, China, and Japan). Prerequisite(s): consent of department head; for the field of U.S. History, 9 semester hours in U.S. History; for each of the other fields, 9 hours in history other than U.S., which must include 3 hours related to the particular field to be studied. (Fall, Spring, Summer)

HIST 3020. Introduction to Museum Studies — 3 hrs.

Exploration of history, public mission, working environment, and ethical issues of museums. Discussion of practical skills and theoretical issues of museum studies, exposing students to broad range of museum types and career opportunities. [Same as ANTH 3440] (Spring)

HIST 3110. Conflict and Justice in History: (Topic) — 3 hrs.

Conflict and Justice in History courses explore how competing social, cultural, economic, and political interests or visions have shaped concepts such as justice, responsibility, ethics, and values in different historical contexts. May be repeated on different topics. (Fall and Spring)

HIST 3279. Conflict and Justice Study Abroad: (Topic) — 3 hrs.

A travel study course in history, emphasizing the politics, culture, values, and ethics of historical societies. May be repeated on different topics. (Variable)

HIST 4000. Senior Seminar in Advanced Historical Skills — 3 hrs.

History 4000 seminars are advanced-level seminars that focus on a specific historical topic/theme/area. They are designed to build on and refine the research, analytical and writing skills gained in HIST 1010: Introduction to Historical Skills. They are discussion-based seminars that provide an opportunity for students to focus in-depth on a specific historical topic and are organized around the production of an original historical research paper using primary and secondary sources. May be repeated on different topics. Prerequisite(s): for History majors: HIST 1010; senior standing. For non-History majors: consent of instructor. (Fall and Spring)

HIST 4003/5003. Collections Care and Management — 3 hrs.

This course will present topics in museums collections management ranging from object/artifact handling, storage, loaning and conservation to museum ethics, acquisitions, policy-making and research to donors, fundraising, marketing, and education. In addition, the course will cover discussions of what constitutes a museum and why museums collect. Museum professionals from both the UNI Museum and UNI Gallery of Art will present all topics, and classes will include an experiential component that will allow students a more personal involvement with historical artifacts and art objects. Students will be given the opportunity to work with a variety of museum professionals and will engage in real-world museum concerns. Prerequisite(s): junior standing.[Same as ARTHIST 4003/5003] (Fall)

HIST 4010/5010. Introduction to Public History — 3 hrs.

Exploration of the critical methodologies and practices of historians working in non-academic settings. Examination of the various issues that historians confront in working with public audiences and

instruction in the skills required to pursue a career in public history. (United States History course) Prerequisite(s): junior standing. (Fall)

HIST 4030/5030. Internship in Historical Studies — 1-3 hrs.

Study and experience in public history settings. Coursework, either individual or collaborative, defined by instructor and/or site supervisor in conjunction with students. May be repeated for a maximum of 6 hours of undergraduate credit and a maximum of 6 hours of graduate credit. Prerequisite(s): junior standing. (Fall, Spring, Summer)

HIST 4035. External Museums Internship in History — 1-3 hrs.

Study and experience in museum settings off campus. Coursework, either individual or collaborative, defined by instructor and/or site supervisor in conjunction with students. May be repeated for a maximum of 6 hours of undergraduate credit. Prerequisite(s): junior standing or permission of instructor. (Fall, Spring, Summer)

HIST 4110/5110. American Colonial History — 3 hrs.

17th- and 18th-century America; development of colonial societies in the New World and American Revolution era. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4130/5130. The Early Republic, 1785-1850 — 3 hrs.

Political, economic, and social development of United States in years between American Revolution and end of Jacksonian era. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4140/5140. Civil War and Reconstruction — 3 hrs.

Causes of the Civil War, nature of the conflict, and short- and long-range consequences of the war. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4150/5150. Foundations of Modern America: The United States, 1877-1929 — 3 hrs.

Description and analysis of dramatic social, cultural, economic, and political changes occurring in the U.S. between the close of Reconstruction and the beginning of the Great Depression. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4160/5160. U.S. History from 1929 to 1960 — 3 hrs.

U.S. history from the Great Crash through the Eisenhower Era, emphasizing the Great Depression and New Deal of 1930s, World War II at home and abroad in the 1940s, and postwar issues including the Cold War and economic prosperity. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4170/5170. U.S. Environmental History — 3 hrs.

Exploration of various concepts of nature within the contexts of U.S. History. Treats the history of nature as a thing in itself, as something that has acted on Americans and that Americans have acted upon. Also explores nature as an idea that has changed over time. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4175/5175. History on Film — 3 hrs.

History on Film explores the ways past events, peoples, and eras have been represented in movies. One of the course goals is to break down assumed and largely false boundaries between academic and popular history. Rather than simply debunk movies, the approach is to assess them in terms of the standards of professional history, to think about how these standards might make films better but also how the popularity of film might improve the practice of history. (United States History course) Prerequisite(s): junior standing. (Spring)

HIST 4180/5180. Recent United States History — 3 hrs.

History of the American people since 1960 with emphasis on domestic affairs. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4198. Independent Study.

(Fall, Spring, Summer)

HIST 4200/5200. History of Iowa — 3 hrs.

Social, political, and economic developments in Iowa from prehistoric times to present. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4235/5235. Popular Culture in the United States — 3 hrs.

Exploration of relationships between expressions of popular culture and the development of American values, political ideologies, and unconscious yearnings. Includes popular music, celebrities, literature, art, design, film, and various forms of mass media. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4245/5245. African-American History — 3 hrs.

History of black Americans from African background into 1980s, with emphasis on period since end of slavery. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4250/5250. Religion in America — 3 hrs.

Investigation of religious movements and beliefs from colonial times to present, with attention to religion and the U.S. Constitution. (United States History course) Prerequisite(s): junior standing. (Same as RELS 4230/5230) (Variable)

HIST 4260/5260. United States Women's History — 3 hrs.

This class explores major themes in the history of U.S. women from the pre-Columbian Era to the present. Putting women at the center of the historical narrative, it examines how ideas about gender have shaped both the everyday lives of Americans and U.S. society more generally, past and present. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4270/5270. American Indian History — 3 hrs.

Survey of the North American Indian experience over four centuries, with emphasis on the 19th and 20th centuries. Focus on Native response to European colonialism, removal, allotment, termination, revitalization, urbanization, Red Power, and pan-Indian movements. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4280/5280. The American Radical Tradition — 3 hrs.

A survey of American social activists working to achieve change, from the abolition of slavery to the present. It will pay particular attention to African-American, women's and working class history. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4310/5310. History of Ancient Greece — 3 hrs.

Archaeology of the Aegean and the Minoan-Mycenaean civilization; Homeric period, classical civilization of Greece to Alexander the Great, and the Hellenistic Age; advent of the Romans. (World History course, Pre-1600 History Elective; formerly, Europe to ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4320/5320. History of Ancient Rome — 3 hrs.

Roman Republic, expansion of Roman rule, Roman Empire, decline and fall of the empire in 5th century A.D. Comparison of the Romans as people with modern Americans. (World History course, Pre-1600 History Elective; formerly, Europe to ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4330/5330. Greek and Roman Life and Culture — 3 hrs.

Cultural survey of the Greco-Roman world from the eighth century B.C. to the fifth century A.D. Subject matter includes elite culture, such as literature, philosophy, and religion, as well as aspects of everyday life, such as clothing, food and drink, and entertainment.

Course Descriptions

(World History course, Pre-1600 History Elective; formerly, Europe to ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4340/5340. Barbarians, Saints, and Pestilence: The Middle Ages — 3 hrs.

European social, economic, political, and cultural developments from the collapse of Roman authority to 15th century. (World History course, Pre-1600 History Elective; formerly, Europe to ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4350/5350. Rebirth, Reform, and Rebellion: The Beginnings of the Modern World — 3 hrs.

A study of the intellectual, artistic, economic, social, and political developments of the Italian and Northern Renaissances and the sixteenth-century Reformations. (World History course, Pre-1600 History Elective; formerly, Europe to ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4360/5360. Age of Absolutism and the Enlightenment — 3 hrs.

History of emerging nations of Europe with emphasis on Age of Absolutism, Louis XIV, and the Enlightenment. (World History course; formerly, Europe to ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4420/5420. History of Ireland — 3 hrs.

Survey of Irish history from the age of conquests (Celtic, Viking, Anglo-Norman, and English) to the present with an emphasis on the development of political and cultural nationalism in the nineteenth century. (World History course, Pre-1600 History Elective; formerly, Europe to ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4440/5440. Kings, Heretics, Witches, and Revolutionaries: England to 1688 — 3 hrs.

England and the British Isles from Celtic and Roman times to the Glorious Revolution of 1688; traces social, cultural, and political developments, with an emphasis on constitutional developments and the emergence of England as a European power. (World History course, Pre-1600 History Elective; formerly, Europe to ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4480/5480. The Ancient Near East — 3 hrs.

The artistic, literary, political, religious, and social accomplishments of Near Eastern people of ancient times. (World History course, Pre-1600 History Elective; formerly, Europe to ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4510/5510. Europe from the French Revolution to World War I — 3 hrs.

Emphasis on political unification, the economic, intellectual, and social impact of advances in science and technology, and the decline of the European concert leading to war in 1914. (World History course; formerly, Europe since ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4520/5520. Europe from World War I to the Present — 3 hrs.

Study of impact of World War I, rise of Communism and Fascism, impact of World War II, and European Renaissance since 1945. (World History course; formerly, Europe since ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4556/5556. History of Outdoor Recreation — 3 hrs.

Explores the history of outdoor recreation in the United States and its role in defining American identity by tracing its global roots, its production and management from the local to the federal level, and by examining controversies surrounding various recreational

forms. (United States History course) Prerequisite(s): junior standing. (Variable)

HIST 4610/5610. English History since 1688 — 3 hrs.

The political, social, and cultural history of England with emphasis on its evolution as a constitutional monarchy, industrial power, and global empire. (World History course; formerly, Europe since ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4640/5640. Modern Mediterranean Europe: History and Culture — 3 hrs.

Exploration of the rich and vibrant histories, cultures, and societies of Spain, Italy, and Greece from the late eighteenth century to the early twenty-first century. (World History course; formerly, Europe since ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4650/5650. Modern Central and Eastern Europe — 3 hrs.

History of Central and Eastern Europe from the 18th to early 21st century in a country-specific, regional, and comparative perspective. Employs a social history approach to examine the long-term development of societies, nations, and states in the region. (World History course; formerly, Europe since ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4660/5660. History of Imperial Russia — 3 hrs.

Political, social, economic, and cultural aspects of Russia with emphasis on 19th century. (World History course; formerly, Europe since ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4670/5670. History of Soviet Russia — 3 hrs.

Political, social, economic, and cultural developments of Russia in 20th century, emphasis on ideology. (World History course; formerly, Europe since ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4675/5675. Great Power Diplomacy from the Congress of Vienna to the Present — 3 hrs.

International diplomacy from 1815 with emphasis on 20th century. (World History course; formerly, Europe since ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4680/5680. Military History from Napoleon to the Present — 3 hrs.

Study of causes and conduct of war and impact of war on society, with emphasis on 20th century. (World History course; formerly, Europe since ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4690/5690. Modern European Women's History — 3 hrs.

Examination of the political, social, intellectual, and economic history of women and gender relations in Europe from the Enlightenment to the present. Attention to women's rights movements and the social construction of gender. (World History course; formerly, Europe since ca. 1700 course) Prerequisite(s): junior standing. (Variable)

HIST 4720/5720. Modern Latin American History — 3 hrs.

Modern development of Latin American states and their relations to the United States. (World History course; formerly, Non-western History course) Prerequisite(s): junior standing. (Variable)

HIST 4730/5730. African Kingdoms & Societies — 3 hrs.

Historical and cultural topics in Africa from earliest times to ca. 1800. (World History course, Pre-1600 History Elective; formerly, Non-western History course) Prerequisite(s): junior standing. (Variable)

HIST 4740/5740. Modern African History — 3 hrs.

Economic and social developments in the African continent, emergence of modern nationalist movements, and character of the European contact and its interaction with traditional African societies, from the 19th century to the present. (World History course;

formerly, Non-western History course) Prerequisite(s): junior standing. (Variable)

HIST 4820/5820. Modern Middle East History — 3 hrs.

Middle East history from 1789 to present including Islamic roots, the rise of nationalism in various states, Arab attempts at unity, and the Arab-Israeli conflict. (World History course; formerly, Non-western History course) Prerequisite(s): junior standing. (Variable)

HIST 4830/5830. Sanskrit and Sovereigns; Sultans and Sufis: A History of South Asia to 1526 CE — 3 hrs.

An analysis of the ideologies, cultures, and institutions within South Asia from the time of the oldest inhabitants, the Adivasis, through to the Indus Valley, Aryan, Indic, and Indo-Islamic periods up to the collapse of the Delhi Sultanate in 1526. (World History course, Pre-1600 History Elective; formerly, Non-western History) Prerequisite(s): junior standing. (Variable)

HIST 4840/5840. Mughals and Marauders; Merchants and Mahatmas: A History of South Asia since 1526 CE — 3 hrs.

A survey of the ideologies, cultures, and institutions of the Indo-Timurid Mughals and their powerful collaborators and antagonists, European, Persian, Central Asian, and Indian (1526-mid 18th century) through to the Indo-Anglian period (1757-present); The influence of India on the expanding British empire; the movements and ideologies which culminated in the creation of the Republic of India, Pakistan, and Bangladesh; contemporary South Asia. (World History course; formerly, Non-Western History) Prerequisite(s): junior standing. (Variable)

HIST 4850/5850. Pre-Modern Chinese History — 3 hrs.

Cultural and institutional developments in China from earliest times to ca. 1800 A.D. (World History course, Pre-1600 History Elective; formerly, Non-western History course) Prerequisite(s): junior standing. (Variable)

HIST 4860/5860. Modern Chinese History — 3 hrs.

Political, social, economic, and intellectual developments in China with special emphasis on period from the Revolution of 1911 to present. (World History course; formerly, Non-western History course) Prerequisite(s): junior standing. (Variable)

HIST 4870/5870. Courtiers, Warriors, and Merchants: Japan to 1800 — 3 hrs.

An analysis of the ideologies and institutions of Japan from the time of the adoption of Chinese Civilization to the end of the 18th century, paying special attention to the processes of decentralization and reunification, and their concomitant culture changes. (World History course, Pre-1600 History Elective; formerly, Non-western History course) Prerequisite(s): junior standing. (Variable)

HIST 4880/5880. The Legacy of the Samurai: Japan since 1800 — 3 hrs.

Description of first non-Western nation to become a modern economic superpower. Traces development in political, social, economic, and cultural aspects from 1800 to present. (World History course; formerly, Non-western History course) Prerequisite(s): junior standing. (Variable)

HIST 4910/5910. Global Studies: (Topic) — 3 hrs.

This course is based on a faculty-chosen topic of a transnational character, with a focus on analyzing this topic in the context of multiple global societies and historical contexts. This course is intended for students in the History-Global Studies Track; however, other History and non-History students also may take the course upon

junior standing. May be repeated on different topics. Prerequisite(s): junior standing. (Variable)

HIST 6010. History: Theory and Practice — 3 hrs.

A comprehensive introduction to the theoretical debates and methodologies in the discipline of history from a global perspective. (Variable)

HIST 6020. History and U.S. Public Policy — 3 hrs.

Use of history in policymaking; historical development of public policy in a specific area. (Spring)

HIST 6030. Research Seminar in History — 3-6 hrs.

Research-centered seminar on specific topics in history, emphasizing application of methods of research, critical analysis, and writing. May be repeated with a change of topic. (Fall, Spring, Summer)

HIST 6040. Readings in History: (Topic) — 3 hrs.

Exploration of interpretations and historical methodologies of a specific historical topic, drawn from chronological, thematic and/or geographical foci. May be repeated with a change of topic. (Variable)

HIST 6050. Historical Methods — 3 hrs.

Investigation of problems confronting the historian and analysis of methods and techniques employed. (Fall)

HIST 6080. History Workshop: (Topic) — 3 hrs.

Discussion-based, hands-on approach to the study of History. Emphases placed on the production of student learning artifacts, discussion, and presentations. May be repeated with a change of topic. (Variable)

HIST 6200. Professional Development Portfolio — 3 hrs.

Discussion-based, hands-on approach to the study of History. Emphases placed on the production of student learning artifacts, discussion, and presentations. May be repeated with a change of topic. (Variable)

HIST 6285. Individual Readings — 1-3 hrs.

May be repeated. Prerequisite(s): consent of department head. (Fall and Spring)

HIST 6288. Seminar: Topics in History — 3 hrs.

Seminar on selected topics in history. May be repeated with change of topic. (Variable)

HIST 6289. Readings Seminar in History — 3-6 hrs.

Historiographical seminar on major schools of interpretation of a specific topic. Seminar will focus on a specific region or have a transnational focus. May be repeated with change of topic. (Variable)

HIST 6297. Practicum — 1-4 hrs.

May be repeated. (Fall, Spring, Summer)

HIST 6299. Research — 3 hrs.

Preparation for thesis or portfolio exit option. May be repeated for maximum of 6 hours on the Thesis option. Prerequisite(s): consent of department. (Fall, Spring, Summer)

HIST 6300. Writing — 3-6 hrs.

Thesis writing. Prerequisite(s): consent of department; Graduate standing. (Fall, Spring, Summer)

HIST 6301. Portfolio — 3-6 hrs.

Portfolio writing. Prerequisite(s): consent of department; Graduate standing. (Fall, Spring, Summer)

HRCS: Health, Recreation and Community Services

Courses

HRCS 4000. Professional Readiness Seminar — 3 hrs.

Professional readiness seminar builds academic, communication, and critical thinking skills needed to successfully meet the challenges you will encounter in the workplace. The focus of the course is on development of professional tools including portfolios, resumes, interviewing skills, relevant certifications, and internship placements. This course is a prerequisite to RTNL, AT and PH internship. Prerequisite(s): Senior standing, instructor consent. (Fall and Spring)

HRCS 6000. Foundations of Community Health and Recreation — 3 hrs.

Analysis of philosophical foundations and ethical principles related to community health and recreation. (Fall)

HRCS 6299. Research.

Fee assessed separately for laboratory materials and/or binding of thesis/research paper. Prerequisite(s): consent of department. (Fall, Spring, Summer)

HUM: Humanities

There is no Humanities Department as such. The courses below are interdisciplinary and are taught jointly by staff from several departments.

Courses

HUM 1021. Humanities I: The Ancient, Classical, and Medieval Worlds — 3 hrs.

Literature, philosophy, religion, and the fine arts, integrated with the history of Western Civilization to 1300. (Fall, Spring, Summer)

HUM 1022. Humanities II: The Renaissance, Reformation, and Enlightenment — 3 hrs.

Literature, philosophy, religion, and the fine arts, integrated with the history of Western Civilization from 1300 to the French Revolution of 1789. (Fall, Spring, Summer)

HUM 1023. Humanities III: The Age of Revolution to the Present — 3 hrs.

Literature, philosophy, religion, and the fine arts integrated with the history of Western Civilization since the French Revolution of 1789. (Fall, Spring, Summer)

HUM 3121. Russia/Soviet Union — 3 hrs.

Interdisciplinary examination of the culture, history, geography, economy, political system, and society of Russia and the Soviet Union. (Fall and Spring)

HUM 3122. Japan — 3 hrs.

Introductory study of Japan: geographical setting, historical background, cultural heritage, social and political systems, and economic development and importance. (Fall and Spring)

HUM 3123. Latin America — 3 hrs.

Historical, political, social, and cultural elements that form the civilization of Latin America. No credit if student has credit in SPAN 3020. (Fall and Spring)

HUM 3124. China — 3 hrs.

Introduction to essential aspects of China, including geography, environment, demography, anthropology, history, language, religion, economic development, political changes, and foreign relations. (Fall and Spring)

HUM 3125. India — 3 hrs.

Treatment of significant elements of Indian culture, historical development, and place in the world today. (Fall and Spring)

HUM 3127. Middle East — 3 hrs.

Treatment of significant aspects of Middle Eastern culture, historical development, and place in the world today. (Variable)

HUM 3128. Africa — 3 hrs.

Interdisciplinary examination of contemporary African society and culture: historical heritage, problems, prospects, and importance. (Fall and Spring)

HUM 3130. Culture and Philosophy of African American Life — 3 hrs.

Interdisciplinary exploration of culture and philosophy of African American life; emphasis on historical and current aspects of life which enhance or deter progress of African Americans educationally, economically, and politically. (Variable)

HUM 3132. Native North America — 3 hrs.

Ethnographic survey of sociocultural systems developed by Native Americans north of Mexico. Emphasis on relationships that exist among ecological factors, subsistence techniques, social organizations, and belief systems; and the impact interactions with European and U.S. societies had on Indian lifestyles. (Same as ANTH 3132) (Variable)

HUM 3137. Native Central and South America — 3 hrs.

Ethnographic focus on the sociocultural systems of the indigenous peoples of Mesoamerica, Amazon Basin, and the Andean Highlands. Emphasis on inter-relationships among environment, history, social organizations, and belief systems from a holistic and comparative perspective. (Same as ANTH 3137) (Fall and Spring)

HUM 3138. Malcolm, Martin, and Justice — 3 hrs.

How might religious leaders insert themselves in the struggle for justice and human rights? Malcolm X and Martin Luther King, Jr. represent the intricate involvement of black religious leaders in the African American struggle for social, political, and economic justice. (Variable)

HUM 3151/5151. Images of Blacks in the White Mind — 3 hrs.

Exploration of the purposefully constructed image of blacks which reinforces inequality, the historical development of white supremacist ideology, and the disempowerment of blacks in the United States. Prerequisite(s): junior standing. (Variable)

HUM 3160/5160. Black Women in America: Challenge, Spirit, Survival — 3 hrs.

Investigation of major themes in lives of black women in America, utilizing scholarship from sociology, literature, cultural studies, and womanist theology. Challenges to fruitful existence and role of striving for self-representation direct the two major units of course. Prerequisite(s): junior standing. (Variable)

HUM 3169. Leadership Internship — 1-3 hrs.

Field placement designed to further develop leadership abilities. Site placement determined in consultation with the Director of Leadership Studies. Prerequisite(s): HUM 3110; consent of instructor and Director of Leadership Studies. (Variable)

HUM 4198. Independent Study.

Independent Study

IA LL: Iowa Lakeside Laboratory

Iowa Lakeside Laboratory is a field station located in the Iowa Great Lakes region of northwest Iowa. It is run cooperatively by the three Regents' Universities. Each summer Iowa Lakeside Laboratory offers a variety of hands-on courses in many disciplines (archaeology, biology, ecology, environmental science, hydrology, soils, taxonomy, writing). Both undergraduate and graduate courses are offered. For information about courses being offered this summer and registration/housing forms, see the Iowa Lakeside Laboratory Web site www.iowalakesidelab.org or contact the Iowa Lakeside Laboratory Administrative Office (250 Continuing Education Facility, The University of Iowa, Iowa City, IA 52242-0907. Phone: 1-888-469-2338 [toll free]. Early registration is advisable because enrollment in Lakeside courses is limited.

Courses

IA LL 1010. Earth, Air and Sky — 2 hrs.

Introduction to the essentials of earth science (astronomy, meteorology, geology, and paleontology). (Summer)

IA LL 2019. Soils and Environmental Quality — 4 hrs.

Role of soils in the environment; relationship between soil quality and plant growth. Field studies on soil identification, degradation and restoration as well as identifying tools useful in effective land and water stewardship. (Summer)

IA LL 2030. Natural History Workshop — 1-2 hrs.

Offered as demand warrants. Five day-long, non-technical introductions to a specific aspect of the natural history of the upper Midwest or techniques for studying natural history. Prerequisite: junior standing. (Variable)

A. Amphibians and Reptiles

B. Birds and Birding

C. Nature Photography

D. Mushrooms and Other Fungi

E. Iowa's Trees and Forests

F. Fish Biology

G. Prairies

I. Common Insects

J. Aquatic Plants

K. Life in Rivers

L. Life in Lakes

M. Mosses and Liverworts

N. Natural History of Iowa Great Lakes Region

P. Field Archaeology

Q. Common Algae

S. Scuba Diving

T. Astronomy

U. Sketching Nature (Variable)

IA LL 2031. Ecology — 4 hrs.

Introduction to the evolutionary and basic principles of ecology at the organismal, population, community, and ecosystem levels. Integrates lectures and field studies to examine the distribution and abundance of plants and animals in native ecosystems. (Summer)

IA LL 2034. Topics in Ecology and Sustainability — 1-4 hrs.

Scientific introduction to ecology and evolution of important groups of organisms. Topics include: algae to vertebrates, different ecological phenomena (e.g., fire and climate change), varying landforms, different ecosystems (e.g., prairies and aquatic systems); emphasis on sustainability with introduction to concepts, issues, and practices; ability to communicate environmental information through a variety of means. May be repeated. (Summer)

IA LL 2040. Field Archaeology — 4 hrs.

Nature of cultural and environmental evidence in archaeology and how they are used to model past human behavior and land use; emphasis on Iowa prehistory; basic reconnaissance surveying and excavation techniques. (Summer)

IA LL 2043. Illustrating Nature-Sketching — 2 hrs.

Sketching plants, animals, and terrain. Visual communication, development of a personal style, and integration of typographic and visual elements on a page will be emphasized. (Summer)

IA LL 2044. Illustrating Nature - Photography — 2 hrs.

Beginning to intermediate technical and compositional aspects of color photography of natural areas and their plants and animals. (Summer)

IA LL 2045. Undergraduate Internships — 1-5 hrs.

Placement with county conservation boards, camps, parks, etc., for experience as interpreters, rangers, and technicians. (Summer)

IA LL 3100/5100. Techniques For Biology Teaching — 1-2 hrs.

Development and implementation of laboratory exercises suitable for inclusion in elementary, middle, high school, and community college biology and environmental courses. Exercises will be built around common organisms and ecosystems in Iowa. Field trips. A. (Summer)

IA LL 3102/5102. Plant-Animal Interactions — 4 hrs.

Introduction to ecology and co-evolution of plants and animals. Emphasis on dispersal, pollination, and plant-herbivore interactions; field and laboratory work, reading, and discussion. Prerequisite(s): one course in the biological sciences; junior standing. (Variable)

IA LL 3103/5103. Aquatic Ecology — 1-4 hrs.

Analysis of aquatic ecosystems. Emphasis on basic ecological principles; ecological theories tested in the field, and identification of common plants and animals. Prerequisite(s): courses in ecology, chemistry, and physics or consent of instructor; junior standing. (Summer)

IA LL 3105/5105. Plant Taxonomy — 4 hrs.

Principles of classification and evolution of vascular plants; taxonomic tools and collection techniques; use of keys. Field and laboratory studies emphasizing identification of local flowering plants and recognition of major plant families. Prerequisite(s): two semesters of introductory biology or consent of instructor; junior standing. (Summer)

IA LL 3107/5107. Field Parasitology — 4 hrs.

Ecology and life history of parasites, protozoans, helminths, arthropods; field and laboratory investigations including preparation, identification, and morphology of representative types and stages; general and comparative concepts of parasitology. (Variable)

IA LL 3109/5109. Ecology and Systematics of Algae: Cyanobacteria and Green Algae — 1-4 hrs.

Ecology and Systematics of Algae: Cyanobacteria and Green Algae (Summer)

Course Descriptions

IA LL 3111/5111. Summer Writing Festival at Iowa Lakeside Laboratory — 1 hr.

One-week workshop designed for young adult to adult writers of all levels, helps participants apply their imagination to their life experiences and become more effective writers. Writing exercises invite imaginative leaps and thoughtful reflections and humor, as well as seriousness. Participants work in various forms of expression, including the personal essay, poetry, and short fiction. Prerequisite(s): junior standing. (Summer)

IA LL 3121/5121. Plant Ecology — 4 hrs.

Principles of plant population, community, and ecosystem ecology illustrated through studies of native vegetation in local prairies, wetlands, and forests. Group or individual projects. Prerequisite(s): two semesters of introductory biology or consent of instructor; junior standing. (Summer)

IA LL 3122/5122. Prairie Ecology — 4 hrs.

Basic patterns and underlying physical and biotic causes of both regional and local distributions of plants and animals of North American prairies; field and laboratory analyses and projects. Prerequisite(s): two semesters of introductory biology or consent of instructor; junior standing. (Summer)

IA LL 3124/5124. Wetland Ecology — 4 hrs.

Ecology, classification, creation, restoration, and management of wetlands. Field studies examine the composition, structure, and functions of local natural wetlands and restored prairie pothole wetlands. Individual or group projects. Prerequisite(s): junior standing. (Summer)

IA LL 3126/5126. Ornithology — 2-4 hrs.

The biology, ecology, and behavior of birds with emphasis on field studies of local avifauna. Group projects stress techniques of population analysis and methodology for population studies. Prerequisite(s): two semesters of introductory biology or consent of instructor; junior standing. (Summer)

IA LL 3127/5127. Introduction to Insect Ecology — 4 hrs.

Field and laboratory study of insects, their diversity, and life history. Emphasis on ecology and behavior. Prerequisite(s): junior standing. (Variable)

IA LL 3128/5128. Fish Ecology — 2-4 hrs.

Basic principles of fish interaction with the biotic and abiotic environment. Field methods, taxonomy, and biology of fish with emphasis on the fish fauna of northwestern Iowa. Prerequisite(s): junior standing. (Summer)

IA LL 3132. Ecology — 4 hrs.

Introduction to the evolutionary and basic principles of ecology at the organismal, population, community, and ecosystem levels. Integrates lectures and field studies to examine the distribution and abundance of plants and animals in native ecosystems. Prerequisite(s): two semesters of introductory biology or consent of instructor. (Summer)

IA LL 3134/5134. Animals and their Ecosystems — 4 hrs.

Focus on the vertebrate and invertebrate animals of the Midwest. Animals are observed in nature either through passive observational techniques or active trapping exercises. Once identified, animals are placed in their proper taxonomic position (i.e., put onto the "Tree of Life"). They also are put into ecological perspective, including habitat preferences (i.e., wetland, lake prairie, forest, river, edge), trophic position, and activity patterns. Conservation status is discussed and in many cases emphasized. Prerequisite(s): an introductory biology course; junior standing. (Summer)

IA LL 3135/5135. Aquatic Toxicology and Wetland Dynamics in Freshwater Systems — 2 hrs.

Fundamental knowledge and understanding of scientific concepts related to the physio-chemical and biological environment; problems and issues (global, national, regional, and local) of freshwater systems; how wetland restoration is used to ameliorate problems; basic tools used to assess aquatic toxicological problems. Prerequisite(s): one year of biology and one year of chemistry; junior standing. (Summer)

IA LL 3140/5140. Water Policy & Politics — 1 hr.

Historical, legal, economic, cultural, and political dimensions of water resources; public perception and enjoyment of this abundant and important natural resource; how public policy developed; private rights; differences between the previous appropriation system in the western U.S. and Eastern riparian rights law; public rights regarding water for navigation, recreation, and environmental protection; water-related institutions such as suppliers of municipal water and irrigation water; interbasin transport of water. Prerequisite(s): junior standing. (Summer)

IA LL 3142/5142. Watershed Hydrology and Surficial Processes — 4 hrs.

Effects of geomorphology, soils, and land use on transport of water and materials (nutrients and contaminants) in watersheds. Fieldwork will emphasize investigations of the Iowa Great Lakes watershed. Prerequisite(s): four courses in the physical or biological sciences or engineering; junior standing. (Summer)

IA LL 3160/5160. Restoration Ecology — 4 hrs.

Ecological principles for the restoration of native ecosystems; establishment (site preparation, selection of seed mixes, and planting techniques) and management (fire, mowing, and weed control) of native vegetation; evaluation of restorations. Emphasis on the restoration of prairie and wetland vegetation. Prerequisite(s): a course in ecology; junior standing. (Summer)

IA LL 3162. Restoration Ecology — 2 hrs.

Ecological principles for restoration of native ecosystems; establishment (site preparation, selection of seed mixes, planting techniques) and management (fire, mowing, weed control) of native vegetation; evaluation of restorations; emphasis on prairie restoration and wetland vegetation. (Summer)

IA LL 3163. Conservation Biology — 4 hrs.

Population- and community-level examination of factors influencing the viability of plant and animal populations from both demographic and genetic perspectives; assessment of biodiversity; and design and management of preserves. Prerequisite(s): general biology. (Summer)

IA LL 3164. Animal Behavior — 2 hrs.

Animal Behavior

IA LL 3165/5165. Behavioral Ecology — 4 hrs.

Animal coloniality, courtship, territoriality, predator defense, habitat selection, foraging, mating systems, and parental care will be examined in the field in order to evaluate various ecological and evolutionary theories of animal behavior. Prerequisite(s): two courses in the biological sciences; junior standing. (Summer)

IA LL 3166/5166. Amphibians & Reptiles — 2-4 hrs.

Ecology, behavior, and conservation biology of amphibians and reptiles. Emphasis on their anatomy and morphology, temperature and water regulation, locomotion, life history, reproduction, population and community ecology, and conservation. (Summer)

IA LL 3175/5175. Soil Formation & Landscape Relationships — 2-4 hrs.

Relationships between soil formation, geomorphology, and environment. Soil description, classification, geography, mapping, and interpretation for land use. Prerequisite(s): introductory soils course or IA LL 3142/5142; junior standing. (Summer)

IA LL 4178/5178. Analysis of Environmental Data — 2 hrs.

Provides students with training in the theory and application of a range of statistical techniques useful for the analysis of ecological and paleoecological data. Topics include data management, exploratory data analysis, regression analysis, direct and indirect ordination methods, classification techniques, transfer functions and the analysis of temporal data. Lectures and practical classes with hands-on-training. Directed towards advanced undergraduate, graduate, and working professionals in ecology and paleoecology. Prerequisite(s): an undergraduate course in statistics, understanding of basic concepts such as correlation and regression, and familiarity with PC-based software for data analysis; junior standing. (Summer)

IA LL 4193. Undergraduate Research — 1-4 hrs.

Prerequisite(s): junior standing; consent of instructor. (Variable)

IA LL 4198. Undergraduate Independent Study — 1-4 hrs.

Prerequisite(s): junior standing; consent of instructor. (Variable)

IA LL 6210. Global Climate Change: Causes, Connections and Cures — 2 hrs.

Underlying causes of global climate change, both natural and human; web of interrelated links affecting the physical and living world, including human society; cause-and-effect relationships and interventions that may reduce negative consequences; for teachers of grades 7-12 and students enrolled in teacher education programs for those grades. Prerequisite(s): bachelor's degree. (Summer)

IA LL 6215. Field Mycology — 4 hrs.

Identification and classification of the common fungi; techniques for identification, preservation, and culture practiced with members of the various fungi groups. (Summer)

IA LL 6217. Ecology and Systematics of Diatoms — 4 hrs.

Field and laboratory study of freshwater diatoms; techniques in collection, preparation, and identification of diatom samples; study of environmental factors affecting growth, distribution, and taxonomic characters; project design and execution, including construction of reference and voucher collections and data organization and analysis. Prerequisite(s): two semesters of introductory biology or geology, and consent of instructor. (Summer)

IA LL 6225. Physical Limnology — 2-4 hrs.

Mechanisms of physical transport of heat and contaminants in lakes; temperature cycle and stratification; disturbances to seasonal temperature structure, including the diurnal mixed layer, waves, upwelling, differential heating; turbulence, mixing, transport; field measurements of physical processes, computer models of transport. (Summer)

IA LL 6234. Topics in Ecology and Sustainability — 1-4 hrs.

Scientific introduction to ecology and evolution of important groups of organisms. Topics include: algae to vertebrates, different ecological phenomena (e.g., fire and climate change), varying landforms, different ecosystems (e.g., prairies and aquatic systems); emphasis on sustainability with introduction to concepts, issues, and practices; ability to communicate environmental information through a variety of means. May be repeated. (Summer)

IA LL 6240. Natural History Workshop — 1-3 hrs.

Offered as demand warrants. Graduate workshop on some aspect of the natural history of the Upper Midwest or on techniques for studying natural history. Prerequisite(s): consent of instructor. (Variable)

IA LL 6263. Conservation Biology — 4 hrs.

Population- and community-level examination of factors influencing the viability of plant and animal populations from both demographic and genetic perspectives; assessment of biodiversity; and design and management of preserves. (Summer)

IA LL 6291. Graduate Internships — 1-5 hrs.

Placement with county conservation boards, camps, parks, schools, etc., for experience as interpreters, rangers, technicians, and teachers. Prerequisite(s): consent of instructor. (Variable)

INTDEPED: Education, Interdepartmental

Courses

INTDEPED 6316. Statistics for Education Professionals — 3 hrs.

This introductory graduate-level course is intended for EdD students who have not previously completed coursework in statistics. It provides a foundational understanding of quantitative methods with direct relevance to professional practice in education. Emphasizing conceptual clarity and practical application, the course prepares students for more advanced doctoral work in research methods. Topics include: sampling, measurement, descriptive statistics, correlation, distributions, inferential statistics, hypothesis testing, effect sizes, confidence intervals, statistical power, t-tests, chi-square tests, and one-way ANOVA. (Summer)

INTDEPED 7301. Major Thinkers in Education over the Last 3,000 Years — 3 hrs.

An investigation of main ideas and perspectives from foundational scholars across fields of philosophy, sociology, history, and psychology who are perceived to have made major contributions in the field of education. Prerequisite(s): doctoral status or consent of college. (Variable)

INTDEPED 7303. Foundations of Inquiry — 3 hrs.

Introduction to the intellectual foundations of educational and social inquiry. Includes the history and major positions of philosophy as well as their application to the practice of inquiry. Includes attention to the theory and practice of scholarship through critical reading and academic writing. Prerequisite(s): doctoral status or consent of college. (Variable)

INTDEPED 7314. Qualitative Research Design for Practice — 3 hrs.

This course focuses on qualitative research designs. Various qualitative methodologies will be used related to identifying, understanding, and solving complex problems of practice. The course will focus on developing conceptual understandings of a problem, ethics of inquiry and practice, and design of an inquiry plan from a qualitative perspective. Students will complete collection, analysis, and synthesis of data for problems of practice, including reporting results and use of data in practice and for broader dissemination. Prerequisite(s): MEASRES 6205 or KAHHS 6290 or equivalent, and a substantial introductory statistics course (MEASRES 4180 or KAHHS 6210 or equivalent); INTDEPED 7326; Admission to the Ed.D. program. (Variable)

Course Descriptions

INTDEPED 7316. Quantitative Research Design for Practice — 3 hrs.

This course prepares doctoral students to design and conduct quantitative research studies that investigate complex problems of practice in education and related fields. Emphasizing the connection between research design and practitioner inquiry, the course supports students in framing researchable problems of practice, aligning them with appropriate quantitative methodologies, and applying statistical techniques to analyze and interpret data. Students will engage in the full research process, including the development of inquiry questions, ethical considerations, study design, data collection, statistical analysis, and reporting. Topics include factorial ANOVA, multivariate analysis of variance (MANOVA), multiple linear regression, logistic regression, and related techniques. Prerequisite(s): A substantial introductory statistics course (INTDEPED 6316, MEASRES 6281, KAHHS 6210, KAHHS 6290 or equivalent); Admission to the Ed.D. program. (Variable)

INTDEPED 7318. Evidence-Based Practices, Assessment, Accountability, and Program Evaluation — 3 hrs.

In today's world of professional practice, simply running a program is not good enough. Modern practice must use assessment and evaluation results. This course provides needed tools. Provides multiple theoretical perspectives as well as hands-on practice. Prerequisite(s): admission to Ed.D. program; INTDEPED 7303. (Variable)

INTDEPED 7320. Leadership in Formal and Informal Learning Environments — 3 hrs.

This course examines leadership, theory, and practice in formal and informal learning environments and promotes comprehensive application strategies to such settings as schools, human services, and leisure, tourism, and environmental organizations. Prerequisite(s): admission to Ed.D. program. (Variable)

INTDEPED 7322. Organizational and Community Transformation — 3 hrs.

Exploration of transformational processes and the forces that shape change in communities and organizations on a macro, meso, and micro scale within the context of promoting and responding to social, cultural, political, economic, and environmental change including institutions and agencies. Prerequisite(s): admission to Ed.D. program; INTDEPED 7303. (Variable)

INTDEPED 7324. Critical Analysis of Social and Cultural Contexts in Education — 3 hrs.

Explores historic and contemporary social, legal, and cultural movements in education and professional practice from sociological and critical perspectives. In-depth focus on philosophy, science, attitudes, belief patterns, and practices related to social and cultural diversity. Prerequisite(s): Doctoral status or consent of college, INTDEPED 7303 (Variable)

INTDEPED 7326. Integrating Theory with Practice — 3 hrs.

This course is designed to prepare entry-level doctoral students in the Ed.D. program for examining complex theoretical frameworks and how theory relates to practice. Students will be exposed to numerous theories from a variety of content areas, faculty research endeavors, and strategies for linking current research trends to their current practice. Prerequisite(s): admission to the Ed.D. program. (Fall and Spring)

INTDEPED 7389. Doctoral Seminar — 3 hrs.

This course supports Ed.D. students in examining the facets of the doctoral degree, setting scholarly agendas, and developing publication skills. More specifically, the course will focus on doctoral core and intensive study area requirements, advisor selection, dissertation

committee selection, and general and specific expectations for the completion of the Ed.D. Graded. Prerequisite(s): INTDEPED 7314, INTDEPED 7316, Doctoral status or consent of college. (Variable)

INTDEPED 7399. Dissertation Research.

Credit/no credit only. Initial enrollment requires attendance at doctoral research seminar. (Variable)

INTDSGN: Interior Design

Courses

INTDSGN 1001. Introduction to Applied Design — 3 hrs.

Overview of applied design issues relating to design methods, design processes, human factors influencing design, environmental impacts, and sustainability concerns. With a focus on design thinking, and understanding the cultural, social and economic impact of design decisions, the class includes projects that explore innovative ideas within the applied design industry. (Fall)

INTDSGN 1061. Design Foundations — 3 hrs.

Introduction to design elements and principles and their application to applied and fine arts. Attention to materials techniques and evaluation. Development of individual perception of design processes within interior design context. (Fall and Spring)

INTDSGN 1063. Drafting for Interiors — 3 hrs.

Introduction to architectural drafting; emphasis on drawing as a visual communication medium in the field of interior design. Development of drafting skills as a graphic language. (Spring)

INTDSGN 1065. Design Visualization and Communication — 3 hrs.

Design and presentation skills developed through studio experiences in various media. Emphasis on perceptual and conceptual development in two and three dimensions. (Spring)

INTDSGN 1067. History of Interiors — 3 hrs.

Styles of furnishings, interiors, and architecture from antiquity to the present. (Spring)

INTDSGN 2063. Computer Applications for Interior Design I — 3 hrs.

Emphasis on three-dimensional graphic representation in the field of interior design. Includes introduction to computer-aided drafting. Prerequisite(s): INTDSGN 1063; declared Interior Design majors only. (Fall)

INTDSGN 2065. Space Planning and the Human Experience — 3 hrs.

Introduction to concepts and application of spatial definition, organization, and theories of human behavior in the built environment. Prerequisite(s): declared Interior Design majors only. (Fall)

INTDSGN 2068. Design Research Methods — 3 hrs.

Complex residential/non-residential design problems incorporating applied research methods. Prerequisite(s): declared Interior Design majors only. (Fall)

INTDSGN 2069. Materials and Resources for Interior Design — 3 hrs.

The study of characteristics, installation, estimating, maintenance and sustainability of materials specified in interior applications. Understanding of sourcing, distribution and sustainable practices related to interior finishes and furnishings. Prerequisite(s): declared Interior Design majors only. (Spring)

INTDSGN 2070. Materials Lab — 1 hr.

Testing processes of materials and textiles used in interior applications, material selections based on the appropriate and required tests and standards applicable to the design context. Corequisite(s): INTDSGN 2069. (Spring)

INTDSGN 3063. Computer Applications for Interior Design II — 3 hrs.

Advanced computer-aided design using related software in the field of interior design. Prerequisite(s): INTDSGN 2063; declared Interior Design majors only. (Spring)

INTDSGN 3069. Building Systems and Lighting — 3 hrs.

Introduction to structural and non-structural building systems, circulation systems, and distribution systems (power, mechanical, HVAC, data/voice and plumbing) as they impact interior applications. Principles of thermal and acoustical design, indoor air quality, natural and electrical lighting design. Prerequisite(s) or corequisite(s): declared Interior Design majors only. (Fall)

INTDSGN 3129. Building Codes and Standards — 3 hrs.

Standards set by the profession for entry-level positions in Interior Design. (Fall)

INTDSGN 3151. Residential Design I — 3 hrs.

Residential design. Programming, space planning, life safety issues, conceptualization, problem solving, and presentation. Includes special populations and purposes. Prerequisite(s) or corequisite(s): INTDSGN 3063; declared Interior Design majors only. (Spring)

INTDSGN 3152. Residential Design II — 3 hrs.

Advanced Residential design. Programming, space planning, life safety issues, conceptualization, problem solving, and presentation. Includes special populations and purposes. Prerequisite(s): INTDSGN 3151. (Fall)

INTDSGN 3164. Professional Practice of Interior Design — 3 hrs.

Professional responsibilities (legal, ethical, social and business) and practice of Interior Design. Prerequisite(s): declared Interior Design majors only. (Spring)

INTDSGN 3165. Professional Preparation in Interior Design — 1 hr.

Development of credentials and portfolio for job market entry. Prerequisite(s) or corequisite(s): INTDSGN 3164; declared Interior Design majors only. (Fall)

INTDSGN 4151. Commercial Design I — 3 hrs.

Non-residential design, programming, space planning, life safety issues, conceptualization, problem solving, and presentation. Includes special populations and purposes. Prerequisite(s): INTDSGN 3069; INTDSGN 3129; declared Interior Design majors only. Prerequisite(s) or corequisite(s): INTDSGN 3063. (Spring)

INTDSGN 4152. Commercial Design II — 3 hrs.

Advanced non-residential design, programming, space planning, life safety issues, conceptualization, problem solving, and presentation. Includes special populations and purposes. Prerequisite(s): INTDSGN 3063; INTDSGN 3069; INTDSGN 3129; declared Interior Design majors only. (Fall)

INTDSGN 4153. Commercial Design III — 3 hrs.

Complex non-residential design, programming, space planning, life safety issues, conceptualization, problem solving, and presentation. Includes special populations and purposes. Prerequisite(s): INTDSGN 3063; INTDSGN 3069; INTDSGN 3129; declared Interior Design majors only. (Spring)

INTDSGN 4162. Advanced Design — 3 hrs.

Complex residential/non-residential design problems incorporating applied research and integration of life safety, building systems and human response to the built environment. Prerequisite(s): INTDSGN 4152. (Spring)

INTDSGN 4184/5184. Topics in Interior Design — 1-3 hrs.

Selected topics relating to current issues in Interior Design. Topics to be announced in the Schedule of Classes. May be repeated on different topics for maximum of 6 hours. Prerequisite(s): junior standing. (Variable)

INTDSGN 4192/5192. Research in Interior Design — 1-3 hrs.

Conduct supervised research and/or scholarly project. Prerequisites: research methods course; junior standing; consent of instructor. (Variable)

INTDSGN 4194/5194. Problems in Interior Design — 1-4 hrs.

Individual topic areas of in-depth study. Prerequisite(s): junior standing; consent of instructor. (Variable)

INTDSGN 4195. Internship in Interior Design — 3 hrs.

Supervised experience in approved work situation. Transfer students must complete one full semester in residence before being approved for internship. Prerequisite(s): all course work must be completed. (Fall, Spring, Summer)

INTDSGN 4198. Independent Study in Interior Design.

(Variable)

KAHS: Kinesiology, Allied Health and Human Services, Interdepartmental

Courses

KAHHS 1020. Dimensions of Wellbeing Lecture — 1 hr.

Overall, the Dimensions of Wellbeing course is designed to prepare students for healthy, proactive lifestyles through lecture, experiential learning, and various physical and wellbeing activities. The core dimensions of wellbeing for the purposes of this course include: physical, emotional, interpersonal, intellectual, spiritual, and environmental wellbeing. The lecture sections of Dimensions are designed to provide an underlying knowledge base for specific wellness topics and themes with a unifying emphasis on how these dimensions are intertwined and linked to overall quality of life. Specific health consumerism and health behavior change topics are also covered across the spectrum of Dimensions of Wellbeing course offerings. This course may not be repeated for additional credit. If a student has already satisfied this portion of the LAC Category 1D Dimensions of Wellbeing, it will be considered a repeat. (Fall, Spring, Summer)

KAHHS 1030. Dimensions of Wellbeing Lab — 1 hr.

Overall, the Dimensions of Wellbeing course is designed to prepare students for healthy, proactive lifestyles through lecture, experiential learning, and various physical and wellbeing activities. The core dimensions of wellbeing for the purposes of this course include: physical, emotional, interpersonal, intellectual, spiritual, and environmental wellbeing. The laboratory sections of Dimensions are designed to apply specific skill-related knowledge, encourage healthy active lifestyles, and motivate students to learn and practice skills related to a wide spectrum of activities and experiences related to wellbeing dimensions. This course may not be repeated for additional

Course Descriptions

credit. If a student has already satisfied this portion of the LAC Category 1D Dimensions of Wellbeing, it will be considered a repeat. (Fall, Spring, Summer)

KAHHS 6210. Quantitative Methods in KAHHS — 3 hrs.

Practical statistical applications commonly used in athletic training, health promotion and education, physical education, and leisure, youth and human services with a focus on the analysis and interpretation of data through the use of computer software packages. (Fall)

KAHHS 6215. Qualitative Methods — 3 hrs.

Application of qualitative methods of data collection and analysis to topics in athletic training, health promotion and education, physical education, and leisure, youth and human services. Prerequisite(s): SPIE 6293 or equivalent. (Variable)

KAHHS 6290. Research Methods for KAHHS — 3 hrs.

Introduction to processes of research in health, physical education, and leisure services with an emphasis on critical analysis of literature, and identification of viable research projects. (Fall and Spring)

KAHHS 7329. Research and Evaluation Seminar — 1-6 hrs.

One hour taken each semester for six semesters for total of 6 hours. Applied approach to research and evaluation. Students plan and implement research and evaluation projects in athletic training, health promotion and education, youth development, leisure, and/or human services settings, working with teams of faculty and other students. Course content includes research methods, statistics, and writing for publication. Prerequisite(s): doctoral standing or consent of instructor. (Fall and Spring)

KAHHS 7365. Field Experience — 1-6 hrs.

Practical experience in leisure, youth and human services, health promotion and education, or athletic training. May be repeated to maximum of 6 hours with consent of student's advisor and graduate committee. (Fall, Spring, Summer)

KAHHS 7395. Internship — 1-6 hrs.

Practical experience in leisure, youth and human services with community agencies. May be repeated to maximum of 6 hours with consent of student's advisor and graduate committee. Prerequisite(s): Consent of graduate committee. (Fall, Spring, Summer)

KAHHS 7410. Critical Theories and Practices I — 3 hrs.

In-depth examination of current theories, philosophical foundations, history and current practices relevant to the allied health, recreation and community services fields. Building on foundational theory courses, students analyze and critique the organization and design of allied health, recreation and community services programs, based on setting and ideological model, in the U.S. and around the world. Students develop praxis design principles consistent with the developmental, normative focus of informal and formal education. Recommended for second year students. Prerequisite(s): consent of instructor. (Variable)

KAHHS 7412. Critical Theories and Practices II — 3 hrs.

Second course in a two-course sequence that surveys allied health, recreation and community services practices and theories in a wide variety of out-of-school and co-curricular settings. Covers theories, models, and best practices in the delivery of services. Students analyze and critique the organization and design of allied health, recreation and community services programs, based on setting and ideological model, in the U.S. and around the world. Students develop praxis design principles consistent with the developmental normative focus of informal and formal education. Recommended for third year students. Prerequisite(s): KAHHS 7410. (Variable)

KINES: Kinesiology

Courses

KINES 2015. Positive Learning Environment in Physical Activities — 3 hrs.

Strategies for developing, implementing, and maintaining a positive psychosocial learning environment for a variety of school-based physical activities; focus will be on classroom organization, lesson development and implementation, and behavior management plans that enhance student motivation and learning outcomes. (Fall)

KINES 2016. Positive Learning Environment for Physical Fitness — 3 hrs.

Strategies for developing, implementing, and maintaining a positive psychosocial learning environment for a variety of school-based physical fitness and lifetime activities. (Spring)

KINES 2019. First Aid and CPR for Physical Educators — 1 hr.

First aid skills for injuries and sudden illness, CPR for adult, child, and infant and AED to prepare physical education major students to teach these in K-12 schools. (Variable)

KINES 2020. First Aid and CPR — 1 hr.

Basic First Aid skills and theory and practice of CPR training for physical education teachers. (Variable)

KINES 2021. Teaching Movement and Rhythmic Activities for Children — 3 hrs.

Developmentally-appropriate physical activities designed to promote the development, refinement, and utilization of fundamental movement actions and concepts during the early through late childhood years. Strategies for selecting and delivering appropriate activities to children. Prerequisite(s) or corequisite(s): EDPSYCH 2030. (Spring)

KINES 2022. Foundational Movement Skills and Activities for Elementary Children — 2 hrs.

Strategies for physical educators to teach movement skills and activities for elementary children. (Variable)

KINES 2025. Conditioning Theory and Practice — 3 hrs.

Theory and practice in training and conditioning of athletes, dynamic warm up and training schedule development. (Variable)

KINES 2030. Teaching Physical Education For Learning — 3 hrs.

The major purpose of this course is to develop knowledge and competence in the generic aspects of effective instruction in physical education as well as to begin to develop effective instructional skills through micro-peer teaching. The student will also learn the historical foundations and significance of physical education and how these have impacted the profession's current goals. Prerequisite(s) or corequisite(s): EDPSYCH 2030. (Fall)

KINES 2031. Teaching Physical Education with Technology — 3 hrs.

Familiarization and enhancement of technology skills specific to supporting physical education instruction in a PK-12 setting. Course focuses on technologies closely aligned with the physical education learning environment (i.e. pedometers, accelerometers, heart rate monitors) to facilitate instruction and assess student performance. Also included are additional technologies related to physical education software and hardware on personal computers use in creating materials for the K-12 student. (Fall)

KINES 2045. Health and Physical Education for Elementary Teachers — 3 hrs.

Methods and materials in health education and physical education appropriate for children. No credit given for students with credit in KAHHS 2045. (Fall and Spring)

KINES 2050. Anatomy and Physiology of Human Movement — 3 hrs.

Anatomy and physiology of the human body focusing on the muscular and skeletal systems. (Fall and Spring)

KINES 2051. Anatomy and Physiology for Physical Educators — 4 hrs.

This course combines the topics of Anatomy and Physiology of human movement. The anatomy portion of the course focuses on learning the structure and function of the muscular-skeletal and cardiorespiratory systems. The physiology portion of the course focuses on physiological adaptations to exercise. (Variable)

KINES 2053. Physical Activity and Nutrition — 3 hrs.

Identification and programming of physical activities and nutrition lifestyle practices. Emphasis on the role of physical activity and nutrition in the enhancement of health and fitness in others. Integration of experiential learning activities with cognitive subject matter. (Fall and Spring)

KINES 2056. Motor Learning and Development — 3 hrs.

Introduction to the developmental and learning factors which influence the capability to move effectively throughout the life span. (Fall and Spring)

KINES 2062. Developmental Trends in Physical Activity & Sport — 3 hrs.

Developmental Trends in Physical Activity and Sport focuses on physical, mental, and emotional developmental changes from early childhood through adolescence in relation to the physical domain. Topics include: theoretical perspectives of human development, development of self-perceptions, influence of significant others throughout childhood and adolescence, effective communication skills for the developmental age, factors that influence motivation and continued participation, emotional experiences in youth sport, and self-regulation skills. (Fall)

KINES 3101. Coaching Theory - Baseball/Softball — 3 hrs.

To provide practical knowledge and develop basic skills necessary for becoming a successful baseball and/or softball coach. (Variable)

KINES 3102. Coaching Theory - Basketball — 3 hrs.

To provide practical knowledge and develop basic skills necessary for becoming a successful basketball coach. (Variable)

KINES 3104. Coaching Theory - Football — 3 hrs.

To provide practical knowledge and develop basic skills necessary for becoming a successful football coach. (Variable)

KINES 3107. Coaching Theory - Soccer — 3 hrs.

To provide practical knowledge and develop basic skills necessary for becoming a successful soccer coach. (Variable)

KINES 3111. Coaching Theory - Track and Field — 3 hrs.

To provide practical knowledge and develop basic skills necessary for becoming a successful track and field coach. (Variable)

KINES 3112. Coaching Theory - Volleyball — 3 hrs.

To provide practical knowledge and develop basic skills necessary for becoming a successful volleyball coach. (Variable)

KINES 3113. Coaching Theory - Individual Sports — 3 hrs.

To provide practical knowledge and develop basic skills necessary for becoming a successful individual sport coach (e.g., swimming, wrestling, tennis). (Variable)

KINES 3118. Practicum in Coaching — 1-2 hrs.

Practical experience working with high school coaches; includes planning and conducting all phases of the program. May be repeated in a different sport for a total of two sports. Prerequisite(s): junior standing; consent of department. (Variable)

KINES 3121. Sociology and Psychology of Physical Activity — 3 hrs.

Introduction to the sociological and psychological issues related to physical activity. Behavior change and motivational strategies to facilitate healthy active lifestyles for youth through adulthood are discussed and applied. Practical information for professionals working in either school or non-school settings dealing with persons involved in physical activity. (Variable)

KINES 3122. Sport Psychology — 3 hrs.

Introduction to the psychological and sociological dimensions of competitive sport with an emphasis on mental skills training for performance enhancement. (Fall and Spring)

KINES 3125. Introduction to Sport Administration — 3 hrs.

Introduction to Sport Administration is designed to provide the foundations of the management, marketing, financial, and legal principles regarding sport facilities, events, tourism, and organizations within interscholastic, intercollegiate, professional and international sport industries. Further, the conduct of amateur and professional sports is addressed. (Fall and Spring)

KINES 3126. Sport Marketing — 3 hrs.

The purpose of this course is to introduce an overview of various aspects of sport marketing and the application of basic principles of sport marketing to the managed sport industry with emphasis on intercollegiate athletics, professional sport, and multi-sport club operations. This course will provide students with an up-to-date understanding of marketing concepts as they are currently being applied in various sectors of the sport industry. (Variable)

KINES 3127. Practicum in Sport Administration — 1 hr.

This course is the last course to be taken after other required courses are completed in the Sports Administration minor. Students gain comprehensive practical experience in sport administration in a sport setting/organization. The experience will build on knowledge and skills learned in the classroom and provide enhanced learning opportunities through hands-on experiences. The practicum experience will assist in further development of a professional portfolio and provide the experience needed for success in the competitive job market. Prerequisite(s): Completion of all coursework in the Sports Administration minor; consent of instructor. (Fall, Spring, Summer)

KINES 3140. Practicum in Strength and Conditioning — 1 hr.

Experiences working in strength and conditioning settings. May be repeated for a maximum of 3 credits. Prerequisite(s): consent of instructor. (Fall, Spring, Summer)

KINES 3151. Biomechanics — 3 hrs.

Application of principles of mechanics to human movement. Prerequisite(s): KINES 2050 or AT 3020 or BIOL 3102. (Fall and Spring)

Course Descriptions

KINES 3153. Exercise Physiology — 3 hrs.

Acute and chronic responses and adaptations of the physiological systems to muscular activity and training. Prerequisite(s): KINES 2050 or AT 3020; KINES 2053. (Fall and Spring)

KINES 3154. Psychological Skills for Sport Participants — 3 hrs.

Understanding of psychological factors which affect performance in competitive sport. Survey of and individualized practice with psychological techniques designed to enhance sport performance. (Fall and Spring)

KINES 3155/5155. Exercise Physiology: Applications for Health and Human Performance — 3 hrs.

Applications in environmental influence on performance, body composition, ergogenic aids, age and gender considerations in sport and exercise, and exercise for special populations. Prerequisite(s): KINES 2050; KINES 3153 or equivalent; junior standing. (Variable)

KINES 3156. Fitness Assessment and Exercise Prescription — 3 hrs.

Assessment of fitness levels and application to fitness programming including remediation of dysfunction in rehabilitation. Prerequisite(s): KINES 3153. (Fall and Spring)

KINES 3157. Sports Nutrition — 3 hrs.

Designed to help students understand the role of nutrition in enhancing athletic performance. Students will learn the impact nutrition has on cells and tissue that determine the physiological response to exercise. Prerequisite(s): KINES 2050 or AT 3020; KINES 3153. (Fall and Spring)

KINES 3158. Clinical Biomechanics — 3 hrs.

Application of principles of mechanics to human movement with special consideration to clinical applications. Prerequisite(s): KINES 2050 or equivalent. (Variable)

KINES 3160. Exercise for Clinical Populations — 3 hrs.

This course explores exercise programming for special populations, including older adults and individuals with various chronic diseases (e.g., obesity, diabetes, cardiovascular disease, cancer, anxiety, depression, osteoporosis). A strong emphasis is placed on cardiology and electrocardiography (ECG), including the interpretation of 12-lead ECGs and the identification of arrhythmias and blockages. Students will engage in lecture-based instruction and hands-on laboratory experiences, utilizing multimedia tools to enhance learning. Case studies, analytical problem-solving, and practical ECG interpretation exercises will allow students to integrate theoretical knowledge into clinical applications. Prerequisite(s): KINES 2053. (Variable)

KINES 3163. Career and Professional Development — 3 hrs.

This course will examine the field of movement and exercise science from a historical perspective, identify emerging trends and ethical behavior, and explore potential employment opportunities and professional associations. Professional development strategies throughout one's career are discussed and evaluated with the establishment of future career goals. This course will also develop the student's skills in writing resumes, creating portfolios and job interviewing in order to enhance employment opportunities. (Fall and Spring)

KINES 3168. Assisting in Physical Activity and Wellness — 1 hr.

Assisting departmental instructor in activity classes. May be repeated once for credit. Prerequisite(s): consent of department. (Fall and Spring)

KINES 3174. Assessment Processes in Physical Education — 3 hrs.

Concepts of measurement and evaluation applied to physical education including the application of written and a variety of performance tests. Focus also on technologies closely aligned with the physical education learning environment (i.e. fitness technology, technology for skill development, physical education classroom technology) to facilitate instruction and assess student performance. Physical Education majors may substitute KINES 3174 for MEASRES 3150. (Fall and Spring)

KINES 3176. Administration and Curriculum Development in Physical Education — 3 hrs.

Administration of programs in the elementary and secondary schools including budgeting, facilities, legal considerations, and support services. Design, development, and evaluation of curriculum content for grades K-12. Prerequisite(s) or corequisite(s): EDPSYCH 2030. (Spring)

KINES 3185. Readings in Kinesiology — 1-4 hrs.

Individual study in an area of physical education. Credit to be determined at time of registration and to be based on student's proposal. Primarily for majors and minors in Physical Education. Prerequisite(s): consent of department head. (Fall and Spring)

KINES 3191. Senior Project — 1-6 hrs.

Individualized study and experiential learning under the supervision of qualified faculty and professionals in the field; Primarily for majors in physical education. May be repeated for a maximum of 6 hours. Prerequisite(s): consent of instructor. (Fall and Spring)

KINES 3192. Internship in Kinesiology — 1-12 hrs.

Comprehensive practical experience in physical education in which the student applies course work in an agency commensurate with degree option. Offered on credit/no credit basis only. May be repeated for maximum of 12 hours. Prerequisite(s): Completion of all course work in the major or minor; current certification in Standard First Aid and Community CPR; consent of Internship Coordinator. (Fall, Spring, Summer)

KINES 3193. Research Experiences — 1-6 hrs.

Conducting supervised research in a research team setting or mentoring setting with faculty, with presentation and publication of research as the goal. Topics for research may not duplicate a class project or the undergraduate thesis. May be repeated for maximum of 6 hours. Highly recommended for students planning to enter graduate programs. Prerequisite(s): consent of instructor. (Fall and Spring)

KINES 3201. Scientific Principles of Strength and Conditioning — 3 hrs.

The course is designed to provide students with the underlying principles and concepts of strength and conditioning program development. Students will learn to utilize instrumentation and equipment for the monitoring and assessment of exercise clients, review, analyze and interpret information, and independently generate conclusions, and communicate knowledge through a variety of modalities. Students will learn to contextualize discipline knowledge to performance sports and / or health, disease and aging. Prerequisite(s): KINES 2050. (Variable)

KINES 3202. Strength and Conditioning Programming and Technique — 3 hrs.

This course is designed for students to apply scientific knowledge and information to design high quality strength and conditioning programs. Students will design different programs based on critical factors related to a variety of clients, such as age, gender, sport experience, goals, and stage of development. This course has a hands-on component where students will learn safety and evaluation

of movement form. Prerequisite(s): KINES 2050; KINES 3153. (Variable)

KINES 3203. Tactical Strength and Conditioning Programming — 3 hrs.

This course is designed for students to apply scientific knowledge and information to design high quality strength and conditioning programs for tactical personnel such as those in the military, law enforcement, and fire and rescue teams. Prerequisite(s) or corequisite(s): KINES 3202. (Variable)

KINES 3230. Drug Prevention Education for School Health Educators — 3 hrs.

The course is designed to provide school health educators with basic information, skills, and coursework relevant to drug prevention education. Coursework is relevant to the needs of a school health educator and can be implemented into the school health education classroom. (Spring)

KINES 3245. Health Education Methods and Curriculum — 3 hrs.

Focus on the skills and knowledge needed to plan, organize, manage, implement, and evaluate K-12 health education instruction. Field experiences in school health education classrooms are a required component of the class. (Fall)

KINES 3260. Substance Abuse Education for School Health Educators — 3 hrs.

The course is designed to provide school health educators with basic information, skills, and coursework relevant to drug prevention education in the school setting. Coursework is relevant to the needs of a school health educator and can be implemented into the school health education setting. (Variable)

KINES 3270. Mental and Emotional Health for School Health Educators — 3 hrs.

Methods of delivering instruction for Mental and Emotional Health in the secondary classroom. Designed for in-service teachers seeking a health education endorsement. (Variable)

KINES 4152. Adapted Physical Education — 3 hrs.

Develop knowledge of current concepts and trends in adapted physical education and the ability to assess, plan, and implement physical education programs designed to meet the unique needs of individuals. (Fall and Spring)

KINES 4172. Elementary Physical Education Teaching Methods — 3 hrs.

Review of philosophy, objectives, content, instructional practices, teaching strategies, and assessment practices appropriate for PK-6 elementary physical education. Laboratory experiences at the elementary level will be included. Prerequisite(s): EDPSYCH 3148. Prerequisite(s) or corequisite(s): KINES 2021; KINES 2056; KINES 3174; KINES 3176. (Fall and Spring)

KINES 4173. Secondary Physical Education Teaching Methods — 3 hrs.

Review of philosophy, objectives, content, instructional practices, teaching strategies, and assessment practices appropriate for secondary physical education. Laboratory experiences will be included at the junior high and high school levels. Prerequisite(s): EDPSYCH 3148. Prerequisite(s) or corequisite(s): KINES 2021; KINES 2056; KINES 3174; KINES 3176. (Fall and Spring)

KINES 4174. Methods and Curriculum for School Health Educators — 3 hrs.

Focus on the skills and knowledge needed to plan, organize, manage, implement, and evaluate appropriate health education instruction

in K-12 classrooms. Field experiences in school health education classrooms. (Fall, Spring, and Summer Variable)

KINES 4175. Instructional Methods and Strategies for K-12 Physical Education — 3 hrs.

This course focuses on instructional practices and teaching strategies for K-12 physical education. (Variable)

KINES 4194. Senior Thesis — 2-6 hrs.

Individualized research involving the selection of an area of inquiry; collection, analysis, and interpretation of data; Primarily for majors in physical education. May be repeated for a maximum of 6 hours. Prerequisite(s): consent of instructor. (Fall and Spring)

KINES 4198. Independent Study.

Primarily for majors in physical education. (Fall, Spring, Summer)

KINES 4217. Organization and Administration of Competitive Sports — 3 hrs.

Organization, philosophy, administration, and management (e.g., budget, scheduling, designing) of interscholastic, intercollegiate, and intramural sports programs. Prerequisite(s): junior standing. (Fall and Spring)

KINES 6222. Sport Psychology — 3 hrs.

Current sport psychology research and its relevance to coaches and athletes. Emphasis on the areas of sport personality, competitiveness, motivation, attention, self-concept, attitudes, competitive anxiety, and goal-setting. Stress management techniques and other psychological skills applicable to the sport setting. (Variable)

KINES 6223. Advanced Strength and Conditioning — 3 hrs.

Scientific principles of strength and conditioning for the planning, monitoring and designing of training programs for a variety of athletes and purposes. (Variable)

KINES 6230. Curriculum Theory and Design in Physical Education — 3 hrs.

Investigation of the curriculum development process, standards based curriculum, contemporary models, selection and sequencing of developmentally appropriate content and activities K-college, and coaching curriculum. Intended to meet the needs and interests of K-12 teachers as well as college teacher/coaches. (Variable)

KINES 6231. Effective Teaching and Behavioral Management in Physical Education — 3 hrs.

Study of the skills and techniques that successful teachers use to make classes appropriate and beneficial for students. Discussion of effective discipline, motivation, and planning techniques. Includes techniques for self-study to determine teaching effectiveness and demonstrate student learning. Special focus on behavioral management strategies to enhance learning during physical education classes. (Variable)

KINES 6240. Advanced Adapted Physical Education — 3 hrs.

This advanced course will explore how to create physical education programs for students with disabilities. The course will present students with information about legislation, a variety of disabilities, advanced topics in assessment and curriculum related to Adapted Physical Education. (Variable)

KINES 6241. Advanced Assessment in Physical Education — 3 hrs.

This course will provide knowledge to students related to performance-based assessment in K-12 physical education. The course will focus on assessment driven instruction, different ways to measure student achievement in physical education, selection of a balanced and practical assessment approach in physical education classes. (Variable)

Course Descriptions

KINES 6251. Applied Analysis of Human Movement — 3 hrs.
Application of mechanical principles and concepts to human movement; emphasis on analysis of techniques employed in sports. Prerequisite(s): KINES 2050; KINES 3151; or equivalents. (Variable)

KINES 6253. Advanced Exercise Physiology and Assessment — 3 hrs.
Process of scientific inquiry into exercise physiology and assessment and interpretation of fitness assessment. Prerequisite(s): KINES 3153; KINES 3155/5155 or equivalent; BIOL 3101 or equivalent; BIOL 3102 or equivalent. (Variable)

KINES 6255. Advanced Motor Learning & Development — 3 hrs.
Study and application of research findings to motor learning and development, and the variables which influence it. (Variable)

KINES 6272. Principles of Sport Administration — 3 hrs.
This graduate course provides an overview of the principles of sport administration from an interdisciplinary perspective including topics such as Management and Leadership in Sport Administration, Sport Marketing and Communication, and Sport Facility and Event Management. (Variable)

KINES 6273. Contemporary and Inclusive Issues in Physical Education — 3 hrs.
Examination and analysis of continuing concerns and issues in the profession. Examination of strategies to fully engage all participants in physical education classes irrespective of a disability or any other attribute. (Variable)

KINES 6285. Readings in Kinesiology — 1-4 hrs.
May be repeated for maximum of 6 hours. (Fall, Spring, Summer)

KINES 6289. Seminar in Kinesiology — 1-3 hrs.
Special topics as indicated in the Schedule of Classes. May be repeated when topics vary up to a maximum of 12 credits. (Fall and Spring)

KINES 6290. Research Methods and Statistical Analyses — 3 hrs.
This course combines the study of research methods and commonly used statistical applications in Kinesiology. (Variable)

KINES 6293. Research Experience in Kinesiology — 1-2 hrs.
Research on problems other than those for the thesis or in regular course offerings. May be repeated for maximum of 6 hours. Prerequisite(s): consent of instructor. (Fall, Spring, Summer)

KINES 6295. Internship — 1-4 hrs.
Experience in non-school settings or agencies. May be repeated for maximum of 4 hours. Prerequisite(s): consent of Graduate Advisor. (Fall, Spring, Summer)

KINES 6297. Practicum — 1-9 hrs.
Practical experiences in Kinesiology. May be repeated for maximum of 9 hours. Prerequisite(s): consent of Graduate Advisor. (Fall, Spring, Summer)

KINES 6299. Research.
Fee assessed separately for laboratory materials and/or binding of thesis/research paper. May be repeated for maximum of 6 hours. Prerequisite(s): consent of department. (Fall, Spring, Summer)

LANG: Languages

Courses

LANG 2003. Preparation for Study Abroad — 2 hrs.
For students planning to study and travel abroad. Practical, social, geographic, and cultural aspects; some emphasis on contrasting

American and foreign cultures. No credit on major or minor in foreign language. (Fall and Spring)

LANG 2020. Constructing Cross-Cultural Bridges — 3 hrs.
Within a Study Abroad experience, exploring multiple components of a specific culture firsthand; attention to the interrelationships among various cultural components such as history, religion, social values and practices, community organization, and language; course activities and requirements designed to increase intercultural understanding and effective interactions among individuals across different cultures. (Same as TESOL 3550) (Summer)

LANG 2030. Contemporary Culture and Identity: (Topic) — 3 hrs.
Designed for study abroad, this course will ask students to reflect on the role that culture plays in identity formation, comparing non-U.S. and U.S. cultures. May be repeated for credit under different topics. (Summer)

LANG 4093. Technology in Language Education — 3 hrs.
Based on current research and methodological approaches, enables critical selection, integration, and application of modern technology in language instruction. Prerequisite(s): for all students: junior standing. Prerequisites for Spanish Teaching majors and minors: SPAN 3001 or SPAN 3006 or SPAN 3050/5050. (Fall)

LANG 4198. Independent Study — 1-6 hrs.
(Variable)

LANG 4740/5740. Language Teaching Methods I — 3 hrs.
Approaches to teaching language that combine thematic, task-based, and communicative learning with a concern for students' individual differences. Attention to planning an effective lesson, including implementing language objectives, language teaching methods, and classroom management techniques that create a rigorous, positive, and equitable learning environment. Prerequisite(s) or corequisite(s): TESOL 3110 or TESOL 4120/5120 or SPAN 3001 or SPAN 3050/5050 or SPAN 3006; junior standing. (Fall and Spring)

LANG 4750. Assessment in Language Learning — 3 hrs.
Survey of basic principles for assessing second language learning and the critical tools that enable fair and effective assessment of listening, speaking, reading, and writing performance. Emphasis on authentic and alternative assessment and to applying assessment principles and tools to teaching practice. Prerequisite(s) or corequisite(s): LANG 4740/5740; junior standing. (Variable)

LANG 6090. Theory and Practice in Foreign Language Teaching — 1-3 hrs.
Synthesis of past and current theories of language acquisition with language teaching practice. May be repeated. Prerequisite(s): consent of instructor. (Fall)

LANG 6095. Research Methods in Culture and Literature — 3 hrs.
Prepares students in various aspects of cultural and literary criticism, use of critical approaches and latest library resources. Graduate students must take this course during first three resident semesters. (Fall and Spring)

LIBRARY: Library

Courses

LIBRARY 1030. Beyond Google: An Introduction to Information Literacy — 1 hr.

Introduction to the formats of information, techniques of information retrieval, and the social, economic, ethical, legal and political issues associated with the use, abuse, and ownership of information. Open to freshmen and sophomores. (Offered during both halves of the fall and spring semesters). (Fall and Spring)

LIBRARY 1100. AI, Algorithms, and (Y)our Future — 1 hr.

A wandering across, around, and through some of the major promises and perils presented by artificial intelligence (AI) like the ethical, economic, political, and creative impacts of these technologies. We will examine how these changes may impact your life, your future career, and (y)our world. (Fall and Spring)

LIBRARY 2100. Who's Controlling (Y)our Information?: Access, Authority, and Technology — 3 hrs.

In today's information ecosystem, it is essential to look at trends and systems of information so we can better understand the impacts and challenges of these ever-changing technologies. We will wrestle with the realities of being informed, responsible, and engaged humans within systems that may be beyond (y)our control. (Fall and Spring)

LIBRARY 2300. Beyond the Hype: Artificial Intelligence as Information — 3 hrs.

Examine how AI is reshaping information and, in turn, all aspects of our individual and collective lives. Gain practical skills while developing critical thinking about who benefits, who doesn't, and how these technologies subtly shape your relationship with information and community. (Spring)

LIBRARY 6100. Information Literacy: Learning to Question in the 21st Century — 3 hrs.

This course focuses on historical and current perspectives in information literacy and the impact of readily accessible information on learning and life in the 21st century. (Fall)

LITED: Literacy Education

Courses

LITED 1044. Children's Literature — 3 hrs.

Evaluation, selection, and use of children's literature in a variety of environments and experiences. (Fall and Spring)

LITED 3000. Foundations of Reading Test Success.

0 hrs. This course provides essential information about the Foundations of Reading Test. It includes background information, support for successful testing specifically related to the FORT and additional resources for review. May be repeated. Offered as credit/no credit grading. Prerequisite(s): admitted to Teacher Education. (Fall, Spring, Summer)

LITED 3115. Methods of Teaching Early Literacy — 3 hrs.

Reading and writing instruction in grades PK-3, with an emphasis on integrating reading, writing, speaking, and listening, as well as integration across content areas. This course includes 5 hours of field experience. Prerequisite(s): Registration requires admission to Teacher Education program. Prerequisite(s) or corequisite(s): LITED 1044; must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Fall and Spring)

LITED 3116. Methods of Teaching Content Literacy in the Intermediate Grades — 3 hrs.

Reading and writing instruction in grades 3-6, with an emphasis on integrating reading, writing, speaking, and listening, as well as integration across content areas. This course includes 5 hours of field experience. Prerequisite(s): LITED 1044; junior standing. Requires admission to teacher education program. Prerequisite(s) or corequisite(s): must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Fall, Spring, Summer)

LITED 3119/5119. Language Development and Emergent Literacy — 3 hrs.

Theories underlying young children's acquisition of oral language and early reading and writing. Emphasis on implications for literacy curriculum in the primary grades and for addressing multilingual learners' rights and needs. Prerequisite(s): LITED 1044; junior standing. Students must earn a GPA of 2.50 or above in Literacy Education minor courses numbered LITED 3119/5119 or above and have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Variable)

LITED 3121/5121. Children's Literature for Diversity and Social Justice — 3 hrs.

Issues and trends in children's literature, including use in elementary school programs. Focus on values, uses, and controversies related to children's literature by and about major American minority groups, including ethnic, religious, and socioeconomic minorities. Prerequisite(s): LITED 1044; junior standing. Students must earn a GPA of 2.50 or above in Literacy Education minor courses numbered LITED 3119/5119 or above and have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Variable)

LITED 4117/5117. Methods of Teaching Content Literacy at the Middle and Secondary Levels — 3 hrs.

Literacy instruction in the middle and secondary grades, including understanding the reading process, literacy across the curriculum, improving fluency, and assessment of literacy. Prerequisite(s): junior standing. Registration requires admission to Teacher Education Program. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. (Fall and Spring)

LITED 4140/5140. Assessment and Evaluation of Literacy — 3 hrs.

Introductory course in evaluating reading, writing, and language of individual children through formative and summative assessments and instruction within a classroom setting. Includes group and individual evaluation, informal assessment procedures, selection of materials, and instructional strategies to meet the needs of individual learners. LITED 4140/5140 and LITED 4193/5193 are linked and co-taught. Prerequisite(s): LITED 1044 or ENGLISH 3940/5940 or consent of instructor; junior standing. Students must earn a GPA of 2.50 or above in Literacy Education minor courses numbered LITED 3119/5119 or above and have a Cumulative and UNI GPA of 2.50 or higher to enroll in this course--priority registration for Literacy Education minors, English teaching majors and minors. Corequisite(s): LITED 4193/5193. (Fall and Spring)

LITED 4147/5147. Advanced Literacy Practices — 3 hrs.

Selection, implementation, and interpretation of a variety of reading, writing, and language arts assessment procedures; small group literacy instruction, and, the development and implementation of effective individualized instructional programs. LITED 4147/5147 and LITED 4192/5192 are linked and co-taught. Prerequisite(s): LITED 1044 or ENGLISH 3940/5940; LITED 3115, LITED 3116, or LITED 4117/5117; LITED 3119/5119 or LITED 3121/5121;

Course Descriptions

LITED 4140/5140; or consent of instructor; junior standing. Students must earn a GPA of 2.50 or above in Literacy Education minor courses numbered LITED 3119/5119 or above and have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. Priority registration for Literacy Education minors and English teaching majors and minors. Corequisite(s): LITED 4192/5192. (Fall and Spring)

LITED 4192/5192. Experience in Literacy: Tutoring — 3 hrs.
Supervised tutoring in the University Reading Center or in a public school reading center. LITED 4147/5147 and LITED 4192/5192 are linked and co-taught. Prerequisite(s): LITED 4140/5140; junior standing. For the Literacy Education Minor, students must earn a GPA of 2.50 or above in Literacy Education minor courses numbered LITED 3119/5119 or above and have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. Corequisite(s): LITED 4147/5147. (Fall and Spring)

LITED 4193/5193. Experience in Literacy: Field — 1-2 hrs.
Supervised experience teaching in elementary or secondary reading programs. May be repeated for maximum of 4 hours. LITED 4140/5140 and LITED 4193/5193 are linked and co-taught. Prerequisite(s): junior standing. Students must earn a GPA of 2.50 or above in Literacy Education minor courses numbered LITED 3119/5119 or above and have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. Corequisite(s): LITED 4140/5140. (Fall and Spring)

LITED 6212. Methods and Materials in Literacy Education — 3 hrs.

Integrated approach to language learning within and across grades K-12, with a strong emphasis on reading and writing connections within content areas and across children's and young adult literature. Prerequisite(s): graduate standing; previous course work in literacy education or consent of instructor. (Variable)

LITED 6238. Advanced Assessment and Evaluation of Literacy Development — 3 hrs.

Experience in assessment and evaluation of literacy processes. An in depth examination of the interrelationship of assessment and evaluation to literacy development including current issues and practices. Prerequisite(s): graduate standing, previous course work in literacy education, or consent of instructor. (Variable)

LITED 6239. Advanced Literacy Curriculum Studies — 3 hrs.
Students locate, read, examine, analyze, and evaluate a variety of historical and contemporary research pieces on current issues and topics in literacy curriculum and instruction; make plans for research studies and write literature reviews, conference and grant proposals. Prerequisite(s): graduate standing or consent of instructor. (Variable)

LITED 6240. Language Development and Variability — 3 hrs.
Exploration of research on factors generally associated with variability in language and literacy development, on methods designed to promote language and literacy development, and on roles of teachers and parents in promoting this development in children with differences. Prerequisite(s): graduate standing, previous course work in literacy education, or consent of instructor. (Variable)

LITED 6245. Ideological, Cultural, and Sociopolitical Issues in Children's Literature — 3 hrs.

Advanced literacy course exploring ideological, cultural, social, and political issues in children's literature. Study in sociocultural contexts of literacy instruction, with critical analysis of literature as an instrument to inform and transform life as well as learning. Prerequisite(s): LITED 1044 or consent of instructor. (Variable)

LITED 6260. Roles of the Reading Specialist — 3 hrs.

Exploration of the five major leadership roles required of school personnel who serve as reading and language arts specialists. Prerequisite(s): graduate standing or consent of instructor. (Variable)

LITED 6289. Seminar — 2-4 hrs.

Seminar topics to be announced in Schedule of Classes. May be repeated for maximum of 4 hours. Prerequisite(s): consent of instructor. (Variable)

LITED 6290. Practicum in Literacy — 2-4 hrs.

Supervised experience in teaching and/or supervision of literacy instruction with licensed teachers who are serving in leadership roles in the area of literacy. May be repeated for maximum of 4 hours. Prerequisite(s): consent of instructor. (Variable)

LITED 6299. Research — 1-6 hrs.

Intended as the final course in the Curriculum and Instruction: Literacy Education program; focuses on completion of final research project and preparation for comprehensive examination in a collaborative seminar setting. Thesis requires a total of 6 hours. Non-thesis requires a total of 3 hours. Prerequisite(s): consent of department. (Fall, Spring, Summer)

LITED 7397. Practicum in Reading — 1-4 hrs.

Supervised professional experience teaching reading education courses at the university level or participating in reading program supervision and consulting within a school district. May be repeated for maximum of 4 hours. Prerequisite(s): consent of instructor. (Variable)

LRNTECH: Learning Technologies

Courses

LRNTECH 1031. Educational Technology and Design — 3 hrs.

This is a foundational course that prepares early childhood, elementary, and middle level pre-service educators to facilitate student learning in technology-rich Pre-K-12 environments. The course provides hands-on experiences that integrate technology, pedagogy, and content knowledge to support clearly-defined student learning outcomes. Pre-service teachers select and design technology-enhanced learning tools to promote collaboration, creativity, communication, and higher-order thinking skills in the classroom. In support of Iowa DoE's adoption of Computer Science Teachers Association (CSTA) Standards, the course includes a unit on integrating computer science and computational thinking in the mainstream K-12 curriculum. Students explore contemporary topics related to educational media and technology trends in education. (Fall and Spring)

LRNTECH 1200. Playgrounds to Pixels: Meaningful Gaming — 3 hrs.

Students will explore how games operate as powerful environments where people experience meaning. Through gameplay, we navigate success and failure, competition and cooperation, and structure and choice. These shape how we think, feel, and experience personal meaning across the gaming landscape. Gaming occurs on the playground, in fantastical realms on the table top, and in vivid video game landscapes. We use concepts from many fields like studies on motivation, learning sciences, design thinking, technology, game studies to reflect on how games and opportunities for play are crafted to create meaningful experiences. (Fall)

LRNTECH 2200. Gamecraft: From Mechanics to Meaning — 3 hrs.

Students will design games and study games as texts and literacies. They will view games as artistic works that express meaning through systems and mechanics that produce emotional and memorable player experiences. Students engage in a creative design process to prototype original games, developing design skills using iterative processes with aesthetic intent. In addition to original creation, they will interpret and critique games as expressions of emotion, meaning, and purpose using theoretical and ludic frameworks. (Spring)

LRNTECH 2600. From Player to Leader: The Esports Experience — 3 hrs.

This course explores the path from player to team leader in the world of esports through gameplay, coaching simulations, field experiences, and strategic analysis. Students will develop skills in examining motivation, developing communication, enhancing wellness, and crafting their own leadership approach in competitive gaming environments. (Spring)

LRNTECH 3600. Technology, Pedagogy, and Learning in the Digital Age — 3 hrs.

This course provides practical skills in integrating technology, pedagogy, and content knowledge, enabling educators to create engaging and accommodating learning environments. Emphasis is placed on developing proficiency in digital citizenship, media literacy, Universal Design for Learning (UDL), and integrating fundamental computer science and generative artificial intelligence (GenAI) concepts within school curriculum frameworks. Through hands-on activities, students learn to use appropriate technology to differentiate instruction and assessments to meet specific learning objectives. They will plan, design, and curate materials that foster creativity, collaboration, computational thinking, and problem-solving skills necessary for the digital age. (Fall and Spring)

LRNTECH 4110/5110. Foundations of Distance Learning and Development — 3 hrs.

This course offers students who are interested in online teaching with best practices and instructional principles essential for effective distance learning. It provides an overview of theoretical frameworks and explores emerging trends in distance education. Students will examine processes specific to online environments and evaluates relevant research in online education. Prerequisite(s): junior standing. (Spring)

LRNTECH 4120/5120. Designing Accessible and Inclusive Learning Environments — 3 hrs.

This course provides a comprehensive understanding of how to design digital learning experiences that are accessible and inclusive to all learners including those with disabilities. Students will explore the principles of the Universal Design for Learning (UDL), accessibility standards, and best practices for creating equitable digital environments. Additionally, the course includes a review of assistive technologies and their role in empowering learners with disabilities. Prerequisite(s): junior standing. (Spring)

LRNTECH 4131/5131. Selection and Application of Learning Technologies — 3 hrs.

This course explores the principles and methods of utilizing computer technology alongside various auditory, visual, and tactile instructional media and technologies. These tools are applied across diverse educational, instructional, informational, and communication settings. Additionally, the course covers research, instructional design skills, equipment operation, and materials production in relation to effective learning strategies. Prerequisite(s): junior standing. (Fall)

LRNTECH 4153/5153. Developing Digital Learning Environments — 3 hrs.

This course centers on instructional system design models for the systematic development of e-learning instruction. The course examines theories and practices within e-learning environments, with an emphasis on enhancing usability and accessibility. It includes instructional methods for assessing learner needs, selecting and implementing suitable technologies, and evaluating the overall effectiveness of e-learning initiatives. Students are tasked with applying their skills to integrate instructional technology effectively, enabling them to plan, create, and manage e-learning projects in a real-world setting. Prerequisite(s): junior standing. (Fall)

LRNTECH 4160. Learning Technology Projects — 1-3 hrs.

Independent learning technology projects. Credit to be determined at the time of registration; project, credit, and evaluation criteria require advance consent of instructor. May be repeated for a maximum of 3 hours. (Variable)

LRNTECH 4186/5186. Studies in Learning Technology — 1-3 hrs.

Individualized study of a specific problem or application in an area as determined by instructor and student. Prerequisite(s): junior standing. (Fall, Spring, Summer)

LRNTECH 4189. Readings in Learning Technology — 1-3 hrs.

Independent instructional technology projects. Credit to be determined at time of registration; project, credit and evaluation criteria require advance consent of instructor. (Fall, Spring, Summer)

LRNTECH 6205. Understanding and Evaluating Research — 3 hrs.

This course is designed to familiarize students with the process of reading for understanding and evaluating research reports. This course emphasizes becoming proficient consumers of research by gaining the skills necessary to critically evaluate published research findings from any field. The focus of this course is to become familiar with the sections of research reports, the jargon, and how to read with criticality in order to effectively evaluate the potential usefulness of any research report. (Fall)

LRNTECH 6208. Enhancing Learning Through Action Research — 3 hrs.

Action research engages educators with systematic investigation of practical solutions that improve their teaching practice. This course engages students in creating an action research proposal and preparing an IRB application for research. This proposal may be used as a starting point for the final masters paper. Prerequisite(s): LRNTECH 6240. (Fall)

LRNTECH 6215. Designing and Implementing Professional Development — 3 hrs.

This course emphasizes planning and producing activities essential for creating effective professional development in a range of formats. This course provides students with the vision and skill to design professional development experiences in a variety of formats, including flipped, hybrid, web-enhanced, and fully online. Students in the cohort will collaborate on the development, marketing, and implementation of a professional development conference, webinar, or other PD experience offered to a real-world audience. Prerequisite(s): LRNTECH 6240. (Variable)

LRNTECH 6216. Adult Learning Instructional Strategies — 3 hrs.

The focus of this course is adult learning theories and practices and their application to designing instruction. The course covers basic instructional design concepts followed by a comprehensive exploration

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of andragogy and adult learning theories and practices. Emphasis is placed on the distinctions between creating instructional materials for adults versus traditional pedagogical approaches. The course integrates andragogical practices with learning theories applicable to adult learners in the digital age. (Fall)

LRNTECH 6237. Creating Change through Digital Leadership — 3 hrs.

Explores leading change towards 21st century learning. Change theory is introduced and then applied to everyday educational systems. Leadership skills are developed through both theory and practical applications. (Fall)

LRNTECH 6238. Topics and Emerging Trends in Learning Technology — 3 hrs.

This course is tailored for educators and trainers that focuses on the latest advancements and emerging trends in learning technologies. As the landscape of learning technology evolves, so too will the topics covered in this course. The primary objective is to empower educators and trainers with the essential skills necessary to integrate current and emerging learning technologies into their professional settings. (Summer)

LRNTECH 6240. Instructional Design for 21st Century Learning — 3 hrs.

This course is designed to equip students with the skills necessary to effectively plan, develop, implement, and evaluate instructional strategies across diverse learning environments. This project-based course integrates instructional design models with contemporary learning theories, enabling students to craft instruction for both educational and professional contexts, and is tailored to large-group, small-group, and individual learners. (Spring)

LRNTECH 6245. Creating Educational Multimedia Content — 3 hrs.

This course introduces students to the principles and practical skills necessary for producing effective instructional media materials. Throughout the course, students will be involved in hands-on projects of various aspects of media production, focusing on creating content that enhances learning experiences in diverse educational settings. (Summer)

LRNTECH 6250. Writing a Graduate Paper/ePortfolio — 3 hrs.

This course refines skills in writing a Masters level Literature Review through the research, reading, writing and formatting of the paper. The Masters ePortfolio is organized, formatted and development begun. (Fall)

LRNTECH 6260. Advanced Learning Technology Projects — 1-3 hrs.

Independent learning technology projects. Credit to be determined at time of registration; project, credit and evaluation criteria require advance consent of instructor. May be repeated for maximum of 3 hours. (Fall, Spring, Summer)

LRNTECH 6285. Readings in Learning Technology — 1-3 hrs.

Reviews individualized selected readings in an area of emphasis as determined by instructor and student. May be repeated for maximum of 3 hours. (Fall, Spring, Summer)

LRNTECH 6286. Studies in Learning Technology — 1-3 hrs.

Individualized study of a specific problem or application in an area as determined by instructor and student. (Fall, Spring, Summer)

LRNTECH 6289. Seminar in Learning Technology — 3 hrs.

Provides the opportunity for candidates to explore a variety of topics in preparation for their profession. (Variable)

LRNTECH 6297. Practicum in Learning Technology — 2-3 hrs.

Students will be provided the opportunity to spend significant time on-site in a supervised position. This practicum experience assists students in discovering, developing and refining necessary competencies and skills for their proposed career goals. (Variable)

LRNTECH 6298. Capstone Field Experience — 3 hrs.

This course provides students with the practical application of a capstone field experience within the context of their current educational, corporate, or other professional work environment. The course is an opportunity for students to apply the knowledge and skills learned throughout the program to facilitate a hands-on, capstone instructional experience relevant to their work setting. The outcome of this course is a comprehensive set of curricular or training materials directly applicable to the vocational environment.

LRNTECH 6299. Research — 3 hrs.

Students complete their masters literature review/project report/original research/journal article during this course. This is the final course of the program. Prerequisite(s): consent of department. (Fall, Spring, Summer)

LRNTECH 7340. Designing Instructional Systems — 3 hrs.

This doctoral level course engages students in creating innovative instructional projects by applying current research, multiple instructional design models and learning theories in the systematic instructional design process. (Variable)

MATH: Mathematics

TO MEET ANY COURSE PREREQUISITE, GRADE OF C- OR HIGHER IS REQUIRED IN THE PREREQUISITE COURSE.

Courses

MATH 100. Intermediate Algebra — 3 hrs.

Fundamental mathematical concepts; functions and graphs; solutions of equations; systems of equations and inequalities; matrices and determinants. Does not count toward minimum hours required for baccalaureate degree. (Fall)

MATH 1000. Exploring Social Justice Issues through Mathematics — 3 hrs.

Exploration of a number of social justice issues through the lens of mathematics. Students will explore, understand, and respond to local and global social justice issues using mathematical concepts and ideas including geometry, statistics, and algebra. (Variable)

MATH 1100. Mathematics in Decision Making — 3 hrs.

Selection of mathematical topics and their applications with an emphasis on mathematical reasoning. Topics include probability and statistics. (Fall and Spring)

MATH 1110. Analysis for Business Students — 3 hrs.

Analysis and interpretation of data using numerical, graphical, and functional viewpoints; linear and exponential functions; modeling data using functions. No credit for students with credit in MATH 1140 or MATH 1120. Prerequisite(s): Satisfactory score on ALEKS exam. (Variable)

MATH 1120. Mathematics for Biological Sciences — 3 hrs.

Proportional reasoning, linear functions and linear regression, exponential functions, and logarithmic functions with scientific applications. No credit for students with credit in MATH 1110 or MATH 1140. Prerequisite(s): Satisfactory score on ALEKS exam. (Variable)

MATH 1130. Trigonometry — 2 hrs.

Trigonometric functions, solution of triangles and applications of simple harmonic motion, polar coordinates, and vectors. No credit for students with credit in MATH 1140. Prerequisite(s): Satisfactory score on ALEKS exam. (Spring)

MATH 1140. Precalculus — 4 hrs.

Pre-calculus mathematics; equations and inequalities; logarithms, exponential and circular functions; analytic trigonometry, analytic geometry, mathematical induction; applications. Credit reduced to 1 hour for students with credit in MATH 1110 or MATH 1120, and to 2 hours for students with credit in MATH 1130. Prerequisite(s): Satisfactory score on ALEKS exam. (Fall)

MATH 1150. Calculus for Technology — 4 hrs.

Survey of analytic geometry and elementary calculus with emphasis on applications. May not be applied to Mathematics major or minor. Prerequisite(s): Satisfactory score on ALEKS exam. (Spring)

MATH 1160. Calling Hogwash: Mathematics for Critical Thinking — 3 hrs.

This course will discuss how mathematics, statistics, and "mathematics" are used to persuade people, and to spread hogwash with a veneer of scientific credibility. Example topics include uses and abuses of data visualization, choices in measures of center and spread, selective use of percentages, truncating axes, the relationship between correlation and causation, forms of bias, and abuses of Big Data. There will be discussions, videos, readings, and examples from current traditional and social media. There will be at least one project where students will apply these techniques to attempt to persuade their classmates of something important to them. (Variable)

MATH 1204. Mathematical Reasoning — 3 hrs.

Mathematics as problem solving, communication, connections, and reasoning. Includes whole numbers, rational number concepts, operations, and connections to algebraic thinking. (Fall and Spring)

MATH 1310. Technology for Secondary Mathematics Teachers — 3 hrs.

Introduction to technologies (calculators, spreadsheets, and dynamic geometric and statistical programs) used in mathematics classrooms (5-12). Activities to develop facility with the technologies while addressing mathematics and pedagogical implications. (Fall)

MATH 1420. Calculus I — 4 hrs.

Limits, differentiation, introduction to integration including the fundamental theorem of calculus. Prerequisite(s): Satisfactory score on ALEKS exam. (Fall and Spring)

MATH 1421. Calculus II — 4 hrs.

Integration techniques, sequences and series, applications. Prerequisite(s): C- or better in MATH 1420. (Fall and Spring)

MATH 1900. Mathematical Problem Solving — 1 hr.

Basic techniques used to solve challenging mathematics problems. Problems considered will come from a broad range of courses. Prepares students to take the William Lowell Putnam Examination and the Iowa Collegiate Mathematics Competition. May be repeated. (Fall and Spring)

MATH 2204. Mathematical Reasoning for Elementary Teachers II — 3 hrs.

Mathematics as problem solving, communication, connections, and reasoning. Includes data analysis, probability, and algebraic reasoning. Activities connected to elementary school mathematics. Designed for elementary education majors. Prerequisite(s): MATH 1204. (Fall and Spring)

MATH 2303. Introduction to Teaching Secondary Mathematics — 3 hrs.

Students will be introduced to National Council of Teachers of Mathematics Principles and Standards and research-based methods of teaching secondary mathematics while learning ways to teach proportional reasoning and rational numbers. A grade of C or better is required for MATH 3304. Prerequisite(s): admitted to Teacher Education; sophomore standing. (Spring)

MATH 2313. Topics in Secondary Mathematics — 3 hrs.

Investigation of selected topics from algebra, geometry and data analysis. Reasoning about topics in the context of the secondary mathematics curriculum. (Spring)

MATH 2422. Calculus III — 4 hrs.

The derivatives and integrals of multi-variable functions and their applications; Gauss', Green's, and Stokes' theorems. Prerequisite(s): C- or better in MATH 1421. (Fall and Spring)

MATH 2500. Linear Algebra for Applications — 3 hrs.

Gaussian elimination; matrix algebra; vector spaces, kernels, and other subspaces; orthogonal projection; eigenvalues and eigenvectors. Prerequisite(s): MATH 1420. (Fall and Spring)

MATH 2900. Discrete and Argumentative Mathematics — 3 hrs.

Logical argument techniques. The writing process in a mathematical context. Theory of sets, functions, and relations. Elements of graph theory. Prerequisite(s): MATH 1420. (Fall)

MATH 3203. Teaching Mathematics in the Elementary School — 3 hrs.

Effective instructional models and strategies for teaching elementary school mathematics; involves selecting and designing mathematical tasks, creating an environment, and orchestrating discourse. Using and supplementing mathematics materials within a sound psychological framework for making instructional decisions. Prerequisite(s): MATH 3204; UNI and cumulative GPA of 2.50 or better; full admission to teacher education is required. (Fall, Spring, Summer)

MATH 3204. Mathematical Reasoning for Elementary Teachers III — 3 hrs.

Mathematics as problem solving, communication, connections, and reasoning. Includes geometry, measurement, and proportionality. Activities connected to elementary school mathematics. Designed for elementary education majors. Prerequisite(s): MATH 2204 or department consent; UNI and cumulative GPA of 2.50 or better. (Fall and Spring)

MATH 3211. Algebra — 3 hrs.

Investigation of problems involving patterns, variables, relations, functions, and their graphs. Exploration and representation of these problems using physical models and technology. Prerequisite(s): MATH 2204 or Math Teaching Major. (Fall and Spring)

MATH 3212. Introduction to Geometry and Measurement for K-8 Teachers — 3 hrs.

Van Hiele levels of thinking. Investigation of two- and three-dimensional concepts, rigid transformations, symmetry, and spatial sense. Prerequisite(s): MATH 3204 or Math Teaching Major. (Fall and Spring)

MATH 3213. Topics in Mathematics for Grades K-8 — 3 hrs.

Investigation of number theory, extending ratio, proportion and probability with connections to rational numbers, algebra and geometry. Reasoning about topics in the context of the K-8 mathematics curriculum. Prerequisite(s): MATH 1204 or MATH 2313. (Fall and Spring)

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MATH 3214. Problem Solving in Mathematics for K-8 Teachers — 3 hrs.

Strategies for constructing and communicating a mathematics problem-solving process. Analysis of resources and strategies to generate mathematics tasks and to create an effective problem-solving environment. Problem solving as a means of constructing mathematics knowledge. Prerequisite(s): MATH 1204 or Math Teaching Major. (Fall and Spring)

MATH 3302. Field Experience in Teaching Secondary Mathematics — 1 hr.

Field experience in which students are actively involved in preparing and teaching lessons in 6-12 mathematics classrooms. Teacher candidates will spend a minimum of 30 hours in math classrooms. In preparing, teaching and reflecting on their lessons, teacher candidates will be expected to draw on theory and research related to teaching and learning processes, motivation, and classroom management and to discuss these theory/practice connections in required written assignments. Offered on credit/no credit basis only. Corequisite(s): MATH 3304. (Variable)

MATH 3304. The Teaching of Secondary Mathematics — 3 hrs.

Mathematics teaching strategies for grades 5-12; roles of content and methods; addressing the needs of diverse learners in secondary mathematics classes; assessing teaching and learning of secondary mathematics. A grade of C or better is required to be eligible for student teaching. Prerequisite(s): EDPSYCH 3148; MEASRES 3150; MATH 3610/5610 or MATH 3600; a grade of C or better in MATH 2303. (Variable)

MATH 3305. Connections: University Mathematics and the Secondary Curriculum — 3 hrs.

Connections between the undergraduate mathematics major and the secondary mathematics curriculum. Consideration of modern algebra, modern geometry, probability and statistics, calculus and number theory in the context of the secondary mathematics curriculum. Prerequisite(s): EDUC 2343. Prerequisite(s) or corequisite(s): MATH 4500/5500. (Spring)

MATH 3410/5410. Dynamical Systems: Chaos Theory and Fractals — 3 hrs.

Historical background, including examples of dynamical systems; orbits, fixed points, and periodic points; one-dimensional and two-dimensional chaos; fractals: Julia sets, the Mandelbrot set, and fractal dimension; computer programs and dynamical systems. Prerequisite(s): MATH 1421; MATH 2500; junior standing. (Even Falls)

MATH 3425/5425. Differential Equations — 3 hrs.

Elementary theory and applications of first order differential equations; introduction to numerical techniques of solving differential equations; solutions of nth order linear differential equations with constant coefficients. Prerequisite(s): MATH 2422; MATH 2500; junior standing. (Odd Falls)

MATH 3430/5430. Partial Differential Equations — 3 hrs.

Study of applied partial differential equations using heat, wave, and potential equations as basis; Fourier series and integrals; Laplace transformations. Prerequisite(s): MATH 3425/5425; junior standing. (Even Springs)

MATH 3440/5440. Numerical Analysis — 3 hrs.

Theory and application of standard numerical techniques dealing with nonlinear equations, systems of linear equations, interpolation and approximation, numerical differentiation and integration.

Prerequisite(s): MATH 1421; MATH 2500; CS 1130 or CS 1160 or CS 1510 or equivalent; junior standing. (Odd Springs)

MATH 3530. Combinatorics — 3 hrs.

Various ways to enumerate elements of a set and graph theory. Appropriate for mathematics, mathematics education, computer science, and actuarial science students. Prerequisite(s): MATH 2900 or CS 1800. (Fall and Spring)

MATH 3600. Euclidean Geometry — 3 hrs.

Topics in elementary plane geometry from an advanced standpoint; triangles, circles, regular polygons, compass and straightedge constructions, figures of equal area; the axiomatic method including making definitions, conjectures, arguments, and theorems. Prerequisite(s): MATH 1420 or equivalent. (Spring)

MATH 3610/5610. Modern Geometries — 3 hrs.

Euclid's postulates serve as a model for studying various axiomatic systems defining incidence geometries. Geometries include finite geometries, plane geometry, neutral geometry, taxicab geometry, spherical geometry, and hyperbolic geometry. Prerequisite(s): MATH 2900 or MATH 3600; junior standing. (Variable)

MATH 3630/5630. Differential Geometry — 3 hrs.

Analytic study of curves and surfaces in three-dimensional Euclidean space. Prerequisite(s): MATH 2422; MATH 2500; junior standing. (Variable)

MATH 3640/5640. History of Mathematics — 3 hrs.

Survey of mathematical activities of humankind in numeration and number systems, algebra, number theory, and calculus from pre-history through the present day. Motives, influences, and methods affecting development of these mathematical topics in Mesopotamian, Egyptian, Greek, Islamic, Indian, Chinese, Native American, and Western civilizations. Ethnomathematics as related to these topics. Prerequisite(s): junior standing. (Variable)

MATH 3750. Statistics and Data Science for Secondary Teachers — 3 hrs.

Descriptive statistics and graphical representations, probability and distributions, tests of statistical significance, statistical association, and data science concepts relevant for teaching in the secondary grades. Specific attention devoted to the use of technology in motivating and explaining concepts and techniques. Prerequisite(s): STAT 1772 or equivalent. (Fall)

MATH 3751. Probability and Statistics — 3 hrs.

Descriptive statistics and graphical representations, basic concepts of probability and distributions, random variables, expectations, sampling theory, tests of statistical significance. Specific attention devoted to the use of technology in motivating and explaining concepts and techniques. (Same as STAT 3751) (Variable)

MATH 3752/5752. Introduction to Probability — 3 hrs.

Axioms of probability, sample spaces having equally likely outcomes, conditional probability and independence, random variables, expectation, moment generating functions, jointly distributed random variables, weak law of large numbers, central limit theorem. Prerequisite(s): MATH 1421; junior standing. (Same as STAT 3752/5752) (Fall and Spring)

MATH 3780/5780. Mathematics of Finance — 3 hrs.

Measurement of interest, annuities, yield rates, amortization and sinking funds, bonds, term structure of interest rates, interest rate sensitivity, stocks and derivatives, elements of risk management. Prerequisite(s): MATH 1420; junior standing. (Same as ACT SCI 3780/5780) (Spring)

MATH 4198. Independent Study.

(Variable)

MATH 4420/5420. Advanced Calculus I — 3 hrs.

Algebraic and topological structure of the reals; limits and continuity; theory of differentiability of functions of a single real variable.

Prerequisite(s): MATH 1421; MATH 2900 or consent of the instructor; junior standing. (Fall)

MATH 4421/5421. Advanced Calculus II — 3 hrs.

Riemann integration; sequences and series of functions; introduction to Lebesgue integration. Prerequisite(s): MATH 4420/5420; junior standing. (Spring)

MATH 4460/5460. Introduction to Complex Analysis — 3 hrs.

Algebraic and geometric structure of complex number system; elementary functions and mappings; differentiation and integration of functions of a single complex variable; analytic and harmonic functions. Prerequisite(s): MATH 2422; junior standing. (Odd Falls)

MATH 4500/5500. Modern Algebra I — 3 hrs.

Basic properties of rings, integral domains, and fields. Polynomials over fields. Ideals and quotient rings. Introduction to groups.

Prerequisite(s): MATH 2500; MATH 2900; junior standing. (Fall)

MATH 4501/5501. Modern Algebra II — 3 hrs.

Groups, homomorphisms, and quotient groups. Field extensions, straightedge and compass constructions. Additional topics from group theory and field theory. Prerequisite(s): MATH 4500/5500; junior standing. (Spring)

MATH 4510/5510. Elementary Number Theory — 3 hrs.

Topics from properties of integers, prime numbers, congruences, cryptography, Pythagorean triples, Diophantine equations, Fermat's last theorem, Fibonacci numbers, and the golden rectangle. Also, number theoretic connections to abstract algebra. Prerequisite(s): MATH 2900; junior standing. (Spring)

MATH 4520/5520. Computational Linear Algebra — 3 hrs.

Students will learn the essential matrix and vector concepts and computational tools needed to understand, implement, and analyze core machine learning algorithms and data pipelines. Prerequisite(s): MATH 2500; junior standing. (Fall)

MATH 4540/5540. Introduction to Optimization — 3 hrs.

Foundations of smooth optimization, descent methods; constrained optimization techniques; nonsmooth optimization methods; convex optimization algorithms; least squares. Prerequisite(s): MATH 2422; MATH 2500; junior standing. (Fall)

MATH 4615/5615. Geometric Transformations — 3 hrs.

Isometries of the plane in context of Klein's definition of a geometry as a group acting on a set of points. Rotations, reflections, and translations are used to study congruence, similarity, and symmetry and to solve problems that would otherwise be difficult using analytic geometry and calculus. Prerequisite(s): MATH 2500; junior standing. (Fall)

MATH 4641/5641. Topology I — 3 hrs.

Introductory study of metric spaces, completeness, topological spaces, continuous functions, compactness, connectedness, separability, product, and quotient spaces. Prerequisite(s): MATH 2422; MATH 2500; junior standing. (Even Springs)

MATH 4790/5790. Mathematics of Deep Learning — 3 hrs.

Mathematics of building and training artificial neural networks, deep neural networks, convolutional neural networks, and recurrent neural networks; reinforcement learning. Prerequisite(s): MATH 2422;

MATH 4520/5520; MATH 3752/5752 or STAT 3752/5752; STAT 4784/5784; junior standing. (Spring)

MATH 4900. Senior Mathematics Seminar — 1 hr.

Researching and writing a paper exploring specific theme, topic, or problem in mathematics, culminating with oral presentation to the class. Prerequisite(s): senior mathematics major. (Fall and Spring)

MATH 4990. Undergraduate Research in Mathematics — 3 hrs.

Research on selected topic in mathematics with faculty supervision. Presentation of written paper at departmental seminar. Prerequisite(s): completion of the major core with minimum GPA of 3.00. (Fall and Spring)

MATH 6201. Foundations of Mathematics Education — 3 hrs.

Introduces current recommendations and policies regarding mathematics goals, content, frameworks, instructional strategies, and curricula. Investigates topics and documents with a focus on application and impact to classrooms. (Variable)

MATH 6205. Teaching Rational Numbers and Proportionality — 3 hrs.

Examination of literature, problems, and issues related to teaching fractions, decimals, ratios, proportion, and percent. Exploration of innovative strategies for developing concepts, skills, and proportional reasoning. Prerequisite(s): MATH 6201 or consent of department. (Variable)

MATH 6209. Mathematics Curriculum and Assessment — 3 hrs.

In this course, students will explore various curricula and strategies and practices for assessing students' thinking and performance. Multiple curricula and forms of quality assessment will be considered, with an emphasis on formative assessment, aligning assessment to instruction, and interpreting evidence. (Even Falls)

MATH 6212. Foundations of Algebraic Reasoning — 3 hrs.

Examination of algebraic standards, content, instructional strategies and curricula. Focus on application and impact on classroom practice, planning, and assessment in algebra. Focus on change in one's teaching and curriculum. (Summer)

MATH 6215. Foundations of Geometric Reasoning — 3 hrs.

Examine geometric standards, content, methods and curricula. Analyze student thinking, examine van Hiele levels and expand conceptions of proof. Focus on impact on one's own practice, planning and assessment. (Variable)

MATH 6216. Number and Operations — 3 hrs.

Examination of literature, problems, and issues related to the teaching of number and operations, with emphasis on whole numbers, decimals, and fractions. Reasoning about topics in the context and pedagogy of the K-8 mathematics curriculum and exploration of innovative problem solving strategies. (Even Summers)

MATH 6225. Teaching and Learning Mathematics — 3 hrs.

Exploration of instructional strategies to support mathematical learning of K-16 students with focus on your own practice. This includes establishing mathematical goals for learning, selecting appropriate tasks, facilitating classroom discourse, building conceptual understanding from procedural fluency, and using technology to enhance instruction. (Even Springs)

MATH 6227. Data Analysis, Probability, and Discrete Mathematical Reasoning — 3 hrs.

In this course, students will explore data collection, display, and interpretation methods including measures of central tendency; theoretical and empirical probability of single- and multi-stage events; and apportionment, fair division, and counting. Concepts will

Course Descriptions

be explored through and connected to best mathematical teaching practices. (Odd Falls)

MATH 6236. Equity and Mathematics Education — 3 hrs.

Examines theories of race, gender, social class, and sexuality and how these theories play out in K-16 mathematics classrooms. Exploration of historical, political, and pedagogical issues within mathematics education. Includes history of treatment of minorities in mathematics education, teaching mathematics for social justice, culturally relevant mathematics pedagogy, and other pedagogies and theories related to teaching socioculturally diverse students. (Odd Springs)

MATH 6299. Research.

Prerequisite(s): consent of department. (Variable)

MATH 6370. Applied Linear Statistical Methods — 3 hrs.

Elements of experimental design. Statistical inferential processes, confidence intervals and hypothesis tests, for comparing means, medians and proportions from multiple groups. Prerequisite(s): STAT 1772, MATH 3751 or consent of instructor. (Fall and Spring)

MATH 6371. Probability and Statistical Inference — 3 hrs.

Discrete and continuous random variables, central limit theorem, regression, correlation, analysis of covariance and categorical data analysis. Multiple regression, ANOVA and categorical data analysis will provide students with tools to analyze real data sets. Prerequisite(s): STAT 1772 or MATH 3751 or consent of instructor. (Variable)

MATH 6381. Current Research in Mathematics Education — 3 hrs.

Understand purposes and methods of research in mathematics education with a focus on action research. Review mathematics education research and its implications for instruction. Conduct a classroom-based action research project. Prerequisite(s): MATH 6201 or consent of department. (Variable)

MATH 6410. Foundations of Calculus — 3 hrs.

Fundamentals of Calculus from the viewpoint of exploring reasons for the details that support Differential and Integral Calculus. Emphases on examples and proving justifications for a variety of mathematical statements. (Variable)

MATH 6420. Mathematical Analysis I — 3 hrs.

Set theory; the real number system; Lebesgue measure; Lebesgue integral. Prerequisite(s): MATH 4420/5420. Corequisite(s): MATH 4421/5421 or consent of instructor. (Fall)

MATH 6421. Mathematical Analysis II — 3 hrs.

Differentiation and integration; classical Banach spaces; metric spaces; general measure and integration theory. Prerequisite(s): MATH 6420. (Spring)

MATH 6460. Complex Analysis I — 3 hrs.

Analyticity; differentiation and integration of functions of one complex variable; power series, Laurent series; calculus of residues. Prerequisite(s): MATH 4420/5420; MATH 4460/5460; or consent of instructor. (Spring)

MATH 6461. Complex Analysis II — 3 hrs.

Analytic continuation; harmonic functions; entire functions; conformal mapping; selected applications. Prerequisite(s): MATH 6460. (Variable)

MATH 6500. Abstract Algebra I — 3 hrs.

Groups: quotient groups, isomorphism theorems, products of groups, group actions, Sylow theorems, solvable and nilpotent groups. Rings and fields: quotient rings, rings of polynomials, integral domains,

fields of fractions. Prerequisite(s): MATH 4500/5500. Corequisite(s): MATH 4501/5501 or consent of instructor. (Fall)

MATH 6501. Abstract Algebra II — 3 hrs.

Rings: arithmetic properties, prime and maximal ideals, Noetherian rings. Modules and vector spaces: linear transformations, free modules, finitely generated modules over PIDs, canonical forms. Fields: field extensions, Galois theory, solvability by radicals. Prerequisite(s): MATH 6500. (Spring)

MATH 6504. Advanced Linear Algebra — 3 hrs.

Vector spaces, linear transformations, matrices, eigenvalues and eigenvectors, canonical forms, bilinear and quadratic forms. Prerequisite(s): MATH 2500 or consent of instructor. (Odd Summers)

MATH 6510. Theory of Numbers — 3 hrs.

Mathematical study of integers: induction, divisibility, prime numbers, congruences, quadratic reciprocity, multiplicative functions. (Variable)

MATH 6520. Complex Functions and Solving Polynomial Equations — 3 hrs.

Complex numbers, complex functions, solution methods for polynomial equations of small degree, insolubility of the quintic via surfaces and monodromy. Prerequisite(s): MATH 6504. (Odd Falls)

MATH 6530. Topics in Discrete Mathematics — 3 hrs.

Topics from combinatorics, graph theory, analysis and application of algorithms, recurrence relations, difference equations, linear programming, and mathematical induction. Applications of these topics in the secondary curriculum. Prerequisite(s): MATH 3530 or MATH 4500/5500. (Variable)

MATH 6640. Topics in the History of Mathematics — 3 hrs.

Topics from history of algebra, analysis, arithmetic, geometry, number theory, probability, and topology as they appear in the development of Mesopotamian, Greek, Islamic, Indian, Chinese, and Western civilizations. May be repeated on different topic with consent of instructor. Prerequisite(s): MATH 3640/5640. (Variable)

MATH 6650. Topics in Mathematical Logic and Set Theory — 3 hrs.

Topics from the predicate calculus and first-order mathematical theories; the Gödel completeness and incompleteness theorems; algebraic and many-valued logic; Boolean algebras, lattices, representation theorems, and models in set theory and mathematical logic; independence of the axioms of set theory (including the axiom of choice and the continuum hypothesis). May be repeated on different topic with consent of instructor. (Variable)

MATH 6670. Non-Euclidean Geometry — 3 hrs.

Historical development of geometry models that do not assume Euclid's fifth postulate. Emphasis on Poincaré's disc and upper half-plane models, distance and area in the hyperbolic plane, and Möbius transformations. Prerequisite(s): MATH 2500; MATH 4500/5500; MATH 3610/5610 or MATH 3600. (Variable)

MATH 6745. Deterministic Operations Research — 3 hrs.

Overview of optimization models, mathematical programming (linear, integer, goal), optimization software LINGO, transportation and assignment problems, network models (shortest-path, maximum-flow), multi-period planning problems. Prerequisite(s): MATH 2422; MATH 2500. (Fall and Spring)

MATH 6746. Probabilistic Operations Research — 3 hrs.

Decision making under uncertainty, Markov chains, deterministic and probabilistic dynamic programming, inventory control, production scheduling, supply chain management, portfolio optimizations.

Prerequisite(s): MATH 2422; MATH 2500, MATH 3752/5752. (Same as STAT 6746) (Fall and Spring)

MATH 6747. Discrete-Event System Simulation — 3 hrs.

Discrete-event systems simulation theory including input analysis, output analysis; applications of simulation software ARENA to studying performances of systems such as bank services, call centers, material-handling systems, and computer networks. Prerequisite(s): MATH 2422; STAT 1772. (Same as STAT 6747) (Fall and Spring)

MATH 6748. Modeling Industrial Systems Using Queueing Networks — 3 hrs.

Queueing networks, applications to modeling and evaluating industrial systems such as flexible manufacturing systems, pull-type production systems, polling systems in computer networks, handoff schemes in cellular mobile networks; computational package MATLAB. Prerequisite(s): MATH 2422; MATH 2500; MATH 3752/5752. (Same as STAT 6748) (Fall and Spring)

MATH 6779. Topics in Probability and Statistics — 3 hrs.

Topics from correlation and regression analysis, analysis of variance and co-variance, non-parametric methods, order statistics. May be repeated on different topic with consent of instructor. Prerequisite(s): consent of instructor. (Same as STAT 6779) (Variable)

MATH 6795. Industrial Internship/Project — 6 hrs.

Mathematical analysis of industrial problems. Features work on a project of interest to a cooperating company. Oral and written reports required on the project. Prerequisite(s): approval of graduate coordinator and admittance to the P.S.M. program. (Variable)

MATH 6796. PSM Capstone Project — 3 hrs.

Mathematical/statistical modeling and analysis of a problem arising in industrial applications. Oral and written reports required on the project. Prerequisite(s): Approval of PSM-Industrial Mathematics coordinator and admittance to the PSM program in Industrial Mathematics. Completion of at least 9 hours in the PSM-Industrial Mathematics program. (Variable)

MEASRES: Measurement and Research Courses

MEASRES 3150. Classroom Assessment — 2 hrs.

This course is an introduction to the purposes and development of classroom assessment with a focus on diagnostic, formative, and summative assessment. Additional course topics include assessment ethics, standards of quality in assessment, communication of assessment data, the use of assessment data to make instructional decisions, and standardized assessment. Physical Education majors may substitute KINES 3174 for MEASRES 3150. Early Childhood Education majors and Music Education majors will be waived from MEASRES 3150. Prerequisite(s): EDPSYCH 2030. Registration requires full admission to the Teacher Education Program. Must have a cumulative 2.50 GPA or higher to enroll in this course. Prerequisite(s) or corequisite(s): EDPSYCH 3148. (Fall, Spring, Summer)

MEASRES 3510. Assessment for Learning — 3 hrs.

This course will focus on the Multi-Tiered Systems of Support (MTSS) framework and the knowledge and skills needed to use data to inform instruction. Students will learn to design, adapt, or select appropriate assessments to match learning goals, analyze the assessment results, and use the results to plan appropriate instruction

for both individual and groups of students across various populations. The use of technology to support data analysis, as well as instruction and/or intervention planning and implementation will also be discussed. (Fall and Spring)

MEASRES 4181/5181. Educational Evaluation in Teaching — 3 hrs.

Principles of measurement and evaluation in the elementary, secondary, and postsecondary schools. Test construction techniques for written tests and performance tests, with norm-referenced and criterion-referenced interpretations; uses of teacher-made instruments and standardized tests. Prerequisite(s): EDPSYCH 3148; MEASRES 3150 or equivalent; junior standing. (Variable)

MEASRES 6205. Educational Research — 3 hrs.

An introduction to research methods relevant to educational research with an emphasis on how these methods address the challenges of conducting research in applied settings such as schools. Course content includes a survey of major types of research designs (both quantitative and qualitative) and their associated approaches for minimizing bias, establishing validity, collecting data, and drawing conclusions. A primary goal of this course is to equip students with an understanding of basic concepts and tools so they can systematically locate, efficiently read and critically evaluate empirical research studies. (Fall, Spring, Summer)

MEASRES 6250. Descriptive Educational Research — 3 hrs.

Examination of theoretical and practical aspects of survey research including sampling, instrumental design and administration, and application of computer techniques to the analysis of survey information. Prerequisite(s): MEASRES 6205. (Variable)

MEASRES 6260. Monitoring Progress in Individuals and Groups — 3 hrs.

Examination of models, data collection methods, analysis, and report preparation for educational single-case, small group, and program evaluations. Attention to application of intervention evaluation in school settings. Prerequisite(s): Admission to the School Psychology Ed.S. Program. (Fall)

MEASRES 6270. Educational Program Evaluation — 3 hrs.

Examination of models, data-gathering methods, analysis, and report preparation for educational program evaluation; attention to application of evaluation research to specific school and non-school settings. Prerequisite(s): MEASRES 6205. (Variable)

MEASRES 6281. Statistics and Measurement — 3 hrs.

Application of statistical principles to research in school psychology. Topics selected from correlational analysis; reliability and validity; analysis of variance; sampling; chi-square, t, and F distributions. Emphasis on statistical inference and basic measurement principles. (Summer)

MEASRES 6282. Individual Intellectual Assessment — 4 hrs.

Administration, scoring, and interpretation of widely used scales of intelligence. Consideration of cognitive assessment issues, including conceptualizations of intelligence, racial and ethnic bias, and applications in school settings. Prerequisite(s): Admission to the MAE in Educational Psychology with Context and Techniques of Assessment Emphasis program (School Psychology program). (Fall)

MEASRES 6283. Academic Assessment and Intervention — 4 hrs.

Ecological approach to academic assessment and intervention; discussion of curriculum-based and standardized measures, ethical considerations and measurement principles; and introduction to academic interventions. Prerequisite(s): Admission to the MAE in

Course Descriptions

Educational Psychology with Context and Techniques of Assessment
Emphasis program (School Psychology program). (Spring)

MEASRES 6284. Psychosocial Assessment — 4 hrs.

Assessment of socio-emotional development of individual students, including interpretation and dissemination of results; ethical considerations and measurement principles. Prerequisite(s): Admission to the Ed.S. in School Psychology program. (Fall)

MEASRES 6285. Readings. (Variable)

MEASRES 6287. Early Childhood Assessment and Intervention — 3 hrs.

In-depth study of the young child, birth through age 8, with a focus on development, assessment, intervention, and mental health. Prerequisite(s): admission to the Ed.S. program in School Psychology or instructor permission. (Spring)

MEASRES 6289. Seminar in Evaluation and Research. (Variable)

MEASRES 6299. Research.

Prerequisite(s): consent of department. (Variable)

MEASRES 7310. Advanced Qualitative Methods in Educational Research — 3 hrs.

Seminar-style course to increase understanding of qualitative research approaches. Focus on mentoring of dissertation projects. Prerequisite(s): INTDEPED 7303; INTDEPED 7314; INTDEPED 7316. (Variable)

MEASRES 7330. Advanced Quantitative Research in Education — 3 hrs.

Seminar-style course intended to increase understanding of and ability to carry out quantitative research approaches. Focus on mentoring dissertation projects. Students will engage with advanced topics such as principal component analysis (PCA), exploratory factor analysis (EFA), structural equation modeling (SEM) including confirmatory factor analysis (CFA), path analysis, and multilevel modeling (MLM). Prerequisite(s): INTDEPED 7316. (Variable)

MGMT: Management Courses

MGMT 2032. Introduction to Programming for Business — 3 hrs.

Introduction to developing business applications using a modern business programming language. Emphasis on the fundamentals of the application development process, programming logic and logical structures, programming language syntax, program testing, and documentation. Prerequisite(s): MGMT 2080. (Fall)

MGMT 2034. Business Application Development — 3 hrs.

In-depth exploration of developing business applications using a modern business programming language. Various features of the language are introduced to solve an array of business problems through programming projects. Prerequisite(s): MGMT 2032; MGMT 2080. (Spring)

MGMT 2036. Business Analytics Fundamentals — 3 hrs.

Provide the fundamental concepts and methods needed to understand the role of business analytics in organizations. Learn how to apply basic business analytics methods as well as how to use different techniques to visualize various types of data to aid in decision making. Develop an understanding of the fundamentals of communication and alignment around concepts that are required for effective data presentation. Allow for project-based opportunities to identify,

understand, analyze, prepare, and present effective visualizations. Prerequisite(s): MGMT 2032. (Spring)

MGMT 2038. AI Foundations for Business — 3 hrs.

Introduces artificial intelligence (AI) as a general-purpose technology critical to contemporary business settings. Provides conceptual AI fluency and hands-on experience with commonly used AI tools. Examines how AI reshapes industries, decision-making, and competitive advantage through co-invention, automation, and value creation. Emphasizes individual and managerial judgment, governance, and consequences of AI integration. Prerequisite(s): MGMT 2080. (Variable)

MGMT 2080. Introduction to Information Systems — 3 hrs.

Introduction to management information systems. Includes introduction to hardware and data communication technology, software and data management, and business applications of the technology. (Fall and Spring)

MGMT 2113. Business Communication — 3 hrs.

Application of business communication principles. Students will study and practice writing common business documents, presenting information, and working with others. Includes the study of non-verbal and interpersonal skills in the workplace as well as the use of email, social media, video-conferencing and other technology to effectively communicate to their audience. (Variable)

MGMT 3100. Legal and Social Environment of Business — 3 hrs.

Introduction to law. Contracts, torts, business ethics, government regulation of business; includes administrative, antitrust, discrimination, international, and product liability law. Prerequisite(s): junior standing. (Fall and Spring)

MGMT 3101. Business Law — 3 hrs.

Study of the common law of contracts and Article II of the Uniform Commercial Code. Prerequisite(s): junior standing. (Variable)

MGMT 3112. Systems Analysis and Design — 3 hrs.

The Systems Development Life Cycle: understanding SDLC phases and applying the tools of systems analysis through a course project. Includes project management, requirements definition, process and data modeling, user interface design, testing, conversion, and implementation. Prerequisite(s): MGMT 2032; junior standing. (Spring)

MGMT 3114/5114. Family Business Management — 3 hrs.

Family-controlled private and public companies are the dominant form of enterprise worldwide, comprising more than 90% of all businesses. They are critical to the fabric of the Iowa economy, especially in our rural areas. They contribute so much more beyond employment, as they are often integral to the placemaking of our communities. This course covers those businesses, their challenges and opportunities. Prerequisite(s): junior standing. [Same as MKTG 3114/5114] (Fall and Spring)

MGMT 3120. Database Management and Theory — 3 hrs.

Study of database theory and design and strategic management of data and databases, relational models and normalization, Structured Query Language, and the use of a relational database. Prerequisite(s): MGMT 2032; MGMT 2034 or MGMT 2036; MGMT 2080; junior standing. (Fall)

MGMT 3121. Advanced Business Analytics — 3 hrs.

Study of concepts, tools, and techniques for identifying business insights and the likelihood of future outcomes from data, including but not limited to classification, rule induction, pattern recognition, clustering methods and predictive analytics. Includes an introduction

to prescriptive analytics utilizing optimization and simulation techniques. A hands-on approach using an appropriate programming language and associated software. Prerequisite(s): MGMT 2032; MGMT 2036. (Fall)

MGMT 3122. Business Intelligence — 3 hrs.

Business intelligence (BI) is a term describing a broad category of applications, technologies, architectures and processes for gathering, storing, accessing and analyzing data to provide business users with timely information to enable better insights into evidence-based decision making. BI is based on techniques for data decision capture, cleansing, validation, warehousing and analytics to help decision makers improve decision outcomes. This course builds the foundations for evidence-based managerial decision making and provides understanding of the concepts of managing data resources and the development of business intelligence capabilities using data visualization, data mining, analytical processing and other advanced BI topics. Prerequisite(s): MGMT 3120. (Spring)

MGMT 3124. Applied Programming for AI in Business — 3 hrs.

A hands-on course focused on programming for AI-driven business solutions. Students use a programming language to extract, clean, transform, and structure data for machine learning and analytics. Topics include building data pipelines, creating reproducible workflows, and using cloud-enabled tools. The course emphasizes preparing data for reliable and ethical AI deployment in business settings. Students explore concepts, tools, and techniques for identifying business insights and predicting future outcomes. Methods covered include classification, clustering, pattern recognition, and predictive analytics. Prerequisite(s): MGMT 2032. Prerequisite(s) or corequisite(s): MGMT 2080. (Variable)

MGMT 3125. Information Systems Development Projects — 3 hrs.

Apply a software development methodology to develop a working information system application for a client. Emphasis on iteratively determining requirements, developing, and testing. Includes client relationship, team work, project management, and user training. Prerequisite(s): MGMT 2032; MGMT 2034; MGMT 2080; MGMT 3112; MGMT 3120; junior standing. (Spring)

MGMT 3126. Business Analytics Projects — 3 hrs.

Using an agile, action learning approach, this course provides a hands-on analytics team project experience. Students apply business analytics concepts and skills to a real-world problem and prepare a consulting report and presentation. While gaining first-hand experience with business analytics, students are also adding value to a client organization by completing an applied project. Emphasis on iteratively determining requirements, data gathering, analysis, and reporting. Includes client relationship, team work, project management, and presentation skills. Prerequisite(s): MGMT 2032; MGMT 2036; MGMT 2080; MGMT 3120; MGMT 3121; junior standing. Prerequisite(s) or corequisite(s): MGMT 3122. (Spring)

MGMT 3127. Decision Support, Analytics and Business Intelligence — 3 hrs.

Study of decision support applications. Topics include decision making, modeling, and support; DSS development tools with particular emphasis on spreadsheet applications; and organizational and social implications of decision support systems. Prerequisite(s): MGMT 2032; MGMT 2034; MGMT 2080; MGMT 3112; junior standing. (Variable)

MGMT 3128. Business Application Development III — 3 hrs.

Study of advanced development tools and concepts, including markup languages, scripting languages, and/or Object Oriented Programming.

Completion of projects. Prerequisite(s): MGMT 2032; MGMT 2034; MGMT 2080; junior standing. (Variable)

MGMT 3138. Generative AI and Natural Language Processing for Business — 3 hrs.

Applies generative AI concepts and basic natural language processing techniques to business problems in a no-code, hands-on lab setting. Introduction to text as data, sentiment analysis, topic modeling. Students evaluate different large language models (LLMs) and apply prompt/context engineering, retrieval-augmented generation (RAG), image generation, lightweight agents, and fine-tuning concepts. Emphases on effective and ethical use-case selection, iterative practice, agent implementation, risk mitigation, ROI, and human-skilling as a competitive advantage. Prerequisite(s): MGMT 2038; junior standing. (Variable)

MGMT 3140. Information Systems Management — 3 hrs.

Professional approaches to managing an organization's Information Systems. Development of effective IS policies and procedures; examination of existing and emerging technological and business strategies and issues. Emphasis on evaluation and communication skills. Prerequisite(s): MGMT 2032; MGMT 2034; MGMT 2080; MGMT 3112; junior standing. Prerequisite(s) or corequisite(s): MGMT 3120. (Fall)

MGMT 3145. Information Systems Applications — 3 hrs.

Understanding current uses of information systems and technology to support organizational goals; the impact of information systems on the organization. Emphasis on design and development of personal productivity tool applications. May not be taken for credit by MIS majors. Prerequisite(s): MGMT 2080 or equivalent; junior standing. (Variable)

MGMT 3153. Organizational Management — 3 hrs.

Study of contemporary organizational concepts and issues and their practical implications for managerial behavior. Prerequisite(s): junior standing. (Variable)

MGMT 3154. Operations Management — 3 hrs.

Principles of management of productive processes in both manufacturing and service industries. Topics include organizational structure, product selection, process design, capacity and location management, quality management, forecasting, inventory management, and job design. Prerequisite(s): ACCT 2120; MGMT 2080; STAT 1772 or equivalent; ECON 2090; ECON 1011; junior standing. (Fall, Spring, Summer)

MGMT 3155. Human Resource Management — 3 hrs.

Provides an overview of the processes and practices involved in recruiting and managing critical human resources. Educates a manager about essential HRM competencies needed for today's organizations. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): MGMT 3153 or MGMT 3965/5965. (Spring)

MGMT 3161. Supply Chain and Purchasing — 3 hrs.

Examination of the integrative management process of purchasing, producing, supplying, and distributing goods and services. Prerequisite(s): ACCT 2120; ACCT 2130; MGMT 2080; MGMT 3154; MGMT 3153 or MGMT 3965/5965; STAT 1772 or equivalent; ECON 2090; ECON 1041; ECON 1051; ECON 1011; junior standing. (Fall)

MGMT 3163. Creative Problem Solving — 3 hrs.

Effective thinking about organizational problems. Topics include critical thinking; problem identification, definition, and analysis; alternative generation and evaluation; negotiation; and design.

Course Descriptions

Prerequisite(s): MGMT 3153 or MGMT 3965/5965; junior standing. (Fall and Spring)

MGMT 3166. Six Sigma and Lean Consulting Methodology — 3 hrs.

Students will gain an understanding of the Six Sigma methodology and the ability to apply it within an industrial organization, specifically students will obtain: The ability to determine what is important so that they can define the improvement opportunity, to measure process performance in order to understand how the organization is performing, to quantitatively analyze improvement opportunities in order to understand root causes, to generate improvement alternatives / solutions in order to determine what needs to be implemented, and to control / monitor the solution implementation through lean consulting, in order to guarantee that the performance improvements are realized. Prerequisite(s): ECON 1011; STAT 1772 or equivalent; ECON 2090; junior standing. (Variable)

MGMT 3167. Global Supply Chain Management — 3 hrs.

This course aims to develop an understanding of key devices of supply chain performance and their interrelationship with firm strategy. Special emphasis is given to understanding regional, national, and subnational attributes necessary to develop solutions for a variety of global supply chain problems. Prerequisite(s): MGMT 3154; ACCT 2120; ACCT 2130; MGMT 2080; STAT 1772 or equivalent; ECON 2090; ECON 1011; junior standing. (Spring)

MGMT 3168. Supply Chain Modeling and Analytics — 3 hrs.

This course introduces students to decision support models that are most frequently used in supply chain applications. The specific topics will include: 1) The role of decision support tools in dealing with a spectrum of supply chain problems; 2) Effective communication of suggested solutions; and 3) Specific models and techniques planning, material requirement planning, inventory management, transportation, supply network design, quality management, and sourcing decisions. Use of basic and advanced spreadsheet modeling tools. Prerequisite(s): ACCT 2120; ACCT 2130; MKTG 2110; MGMT 2080; MGMT 3154; STAT 1772 or equivalent; ECON 1011; ECON 2090; ECON 1041; ECON 1051; junior standing. (Fall)

MGMT 3169. Management of Service Operations — 3 hrs.

Managing services, especially the operation's activity in service firms. Includes determining the service package, forecasting service demand, managing demand, capacity analysis and management, scheduling, cost control, service quality, and human resource management. Standardization, franchising, and service automation addressed. Prerequisite(s): ECON 1011 and ECON 2090; admittance to Wilson College of Business; junior standing. (Variable)

MGMT 3170. Special Problems — 1-3 hrs.

Credit determined at registration. Student will choose one of the following areas: 1. (Fall, Spring, Summer)

MGMT 3179. Cooperative Education — 1-3 hrs.

Compensated work experience in conjunction with an academic project conducted under faculty guidance. For majors only. May be repeated for maximum of 6 hours. Offered on credit/no credit basis only. Prerequisite(s): 2.70 cumulative UNI GPA; junior standing; consent of department head. (Fall, Spring, Summer)

MGMT 3183. Leadership Skills — 3 hrs.

Foundations of leadership. Skill development through case analyses, role plays, and experiential learning. Assessment/development of leadership competencies. Team building, negotiation, and conflict resolution. Prerequisite(s): MGMT 3153 or MGMT 3965/5965; junior standing. (Spring)

MGMT 3185. Project Management — 3 hrs.

Development of leadership skills through management of organizational projects from selection to implementation. Includes management of project cost, quality, schedule, scope, risk, and communications. (Fall and Spring)

MGMT 3189/5189. International Management — 3 hrs.

Problems of organizing, financing, and operating multinational enterprises, and impact of multinational business upon a world economy. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Fall and Spring)

MGMT 3905/5905. Employment and Labor Law — 3 hrs.

Legal and practical examination of employee selection, dismissal, discrimination, health and safety, labor relations and associated human resource management issues. Prerequisite(s): MGMT 3100 or MGMT 3101 or equivalent; junior standing. (Fall)

MGMT 3965/5965. Organizational Behavior — 3 hrs.

A systematic study of micro-level theoretical concepts and their strategic and practical implications for understanding, analyzing, and predicting individual and group behavior. Prerequisite(s): junior standing. (Fall, Spring, Summer)

MGMT 3966/5966. Staffing and Employee Development — 3 hrs.

Assessing staffing needs as part of strategic planning; maintaining appropriate staffing levels; designing and implementing training and development programs. Prerequisite(s): MGMT 3155; MGMT 3153 or MGMT 3965/5965; junior standing. (Fall)

MGMT 3968/5968. Compensation and Performance Management Systems — 3 hrs.

Examination of the total compensation and performance management systems at multiple levels. Key topics include wage determination, salary structures, total rewards, benefits, performance assessment, performance management, and performance improvement. Prerequisite(s): MGMT 3155; MGMT 3153 or MGMT 3965/5965; junior standing. (Spring)

MGMT 3969/5969. Management Internship — 1-3 hrs.

Uncompensated work experience in conjunction with an academic project conducted under faculty guidance. May be repeated for maximum of 6 hours. Offered on credit/no credit basis only. Prerequisite(s): 2.70 cumulative UNI GPA; junior standing; consent of department head. (Fall, Spring, Summer)

MGMT 3974/5974. Ethics, Responsible AI, and Business — 3 hrs.

Application of ethical principles and analytic methods to managerial decision-making and contemporary issues in business, including examination of the role and the impact of AI on ethically managing employees and business processes/practices. Apply AI-Ethics in practical scenarios at a workplace. Specific topics will vary in accordance with current events. Prerequisite(s): MGMT 3100 or 3 hours in Philosophy (PHIL XXXX) or 3 hours in Religious Studies (RELS XXXX); junior standing. [Same as PHIL 3974/5974 and RELS 3974/5974] (Fall and Spring)

MGMT 3984/5984. Dynamics of Negotiations — 3 hrs.

Study of one-on-one and group deal-making processes of negotiation and conflict management skills as practiced in different settings faced by future leaders and managers. Prerequisite(s): MGMT 3153 or MGMT 3965/5965; junior standing. (Fall and Spring)

MGMT 4100. Applied AI Projects for Business — 3 hrs.

This course enables students to synthesize and apply technical, strategic, and ethical AI knowledge to real-world business challenges. Working individually or in small teams under faculty supervision,

students will partner with an external organization, such as a startup, corporation, nonprofit, or public-sector entity, to design and execute a complete AI project. Projects span business disciplines like finance, marketing, supply chain, HR, and analytics, allowing students to align work with their professional interests. Students will manage the full AI solution lifecycle: problem scoping, data preparation, model development and validation, business impact analysis, and ethical review. The course culminates in a professional deliverable that includes a working prototype or proof-of-concept, a strategic implementation plan, and a stakeholder-oriented presentation addressing value creation, risks, and responsible deployment. Prerequisite(s): MGMT 3124. (Variable)

MGMT 4175. Strategic Management — 3 hrs.

Study of strategy formulation and implementation processes. Focus on the application of integrative approaches to management through case analysis. For senior business majors. Prerequisite(s): completion of all other courses in the "business core"; ACCT 2120; ACCT 2130; MKTG 2110; MGMT 2080; MGMT 3100; MGMT 3154; MGMT 3153 or MGMT 3965/5965; FIN 3130; STAT 1772 or equivalent; ECON 2090; ECON 1041; ECON 1051; ECON 1011; senior standing. (Fall, Spring, Summer)

MGMT 6249. Management Information Systems Concepts — 3 hrs.

Provides students with knowledge of the role of information systems within an organization; systems, information and decision theory; information systems applications including decision support; and systems evaluation and selection. Prerequisite(s): consent of MBA Director. (Variable)

MGMT 6250. Business Strategy — 3 hrs.

Analysis of business environment, and the strategic response. Prerequisite(s): consent of MBA Director. (Variable)

MGMT 6252. Information Systems & Data Visualization — 3 hrs.

This course provides students with knowledge of the role of information systems within an organization and how information systems can be used to support decision-making. Students will learn to identify, access, and prepare data for visualization based on best practices and create dashboards and data stories that effectively communicate data insights to aid in operational and strategic decision-making processes. Prerequisite(s): consent of MBA director/program coordinator. (Spring and Variable Falls)

MGMT 6254. Business Intelligence — 3 hrs.

This course provides a broad overview of business intelligence and data management techniques, including data management/data governance strategies, data mining and other business/data analytics techniques, and business intelligence approaches. The primary emphasis will be on the managerial perspective, focusing on how you can design, implement, and leverage business intelligence systems and strategies in a management role. Prerequisite(s): consent of MBA director/program coordinator. (Summer)

MGMT 6260. Leading People, Driving Success: Leadership and HR Management — 3 hrs.

This course will use principles of organizational behavior applied to managerial practices and human resource management to show how effective leadership in managing people can drive overall success for employees and organizations. Prerequisite(s): consent of MBA Coordinator or MBA Program Manager. (Variable)

MGMT 6262. Cross-Functional Operations — 3 hrs.

Analysis and design of business operational decisions in complex production and service environments. Prerequisite(s): consent of MBA Director. (Variable)

MGMT 6266. Innovative Thinking & Creative Problem Solving — 3 hrs.

This course explores the essential skills and mindset needed to drive innovation in the business world. Students will learn strategies to foster creativity, generate novel ideas, and solve complex problems. This course equips students with the tools and techniques to think innovatively and tackle business challenges with a fresh perspective. Prerequisite(s): consent of MBA director/program coordinator. (Spring and Variable Falls)

MGMT 6272. Research and Analysis for Management Decisions — 3 hrs.

Study of the tools and techniques for business research and data analysis. Emphasis on applying the tools and techniques to determine, define, and solve complex business problems and improve managerial decision making. Prerequisite(s): consent of MBA Director. (Variable)

MGMT 6276. Business Capstone Experience — 1 hr.

Analyze, solve, and present a solution to a complex, interdisciplinary business problem. Prerequisite(s): consent of MBA Director. (Variable)

MGMT 6278. Consulting Capstone Experience — 1 hr.

Acting as a member of a consulting team, analyze an organization's business situation and recommend a course of action. Prerequisite(s): GPA of 3.2 or higher or consent of MBA Director. Prerequisite(s) or corequisite(s): Consent of MBA Director. (Variable)

MGMT 6285. Individual Readings — 1-3 hrs.

Directed readings and reports. May be repeated for maximum of 4 hours. Prerequisite(s): consent of MBA Director. (Fall, Spring, Summer)

MGMT 6299. Research — 1-6 hrs.

Prerequisite(s): consent of MBA Director. (Fall, Spring, Summer)

MIL SCI: Military Science

Basic Courses - MIL SCI 1090 through MIL SCI 1098

Advanced Courses - MIL SCI 3116 through MIL SCI 3195

Courses

MIL SCI 1090. Military Science Fitness Training — 1-3 hrs.

This course is designed to use basic military training skills and instruction to develop confidence, leadership, and physical fitness. The team approach is utilized in the instruction and application of Army physical fitness requirements. Students will learn various Army physical fitness techniques as well as how to conduct physical fitness sessions. Full participation in all events will be determined based on students physical and medical eligibility. May be repeated for maximum of 3 hours. (Fall and Spring)

MIL SCI 1091. Introduction to the Army and Critical Thinking — 1 hr.

Introduces students to the personal challenges and competencies that are critical for effective leadership in the military. Students learn how the personal development of life skills such as goal setting, time management, physical fitness, and stress management relate to leadership, officership, and the Army profession. Discussion, 1 hr./wk., lab arranged, plus 1 field trip. (Fall)

Course Descriptions

MIL SCI 1092. Introduction to the Profession of Arms — 1 hr.

Overviews leadership fundamentals for the military profession such as setting direction, problem-solving, listening, presenting briefs, providing feedback and using effective writing skills. Students explore dimensions of military leadership values, attributes, skills, and actions in the context of practical, hands-on, and interactive exercises. Discussion, 1 hr./wk., lab arranged, plus 1 field trip. (Spring)

MIL SCI 1093. Leadership and Decision Making — 2 hrs.

Explores the dimensions of creative and innovative military leadership strategies and styles by studying historical case studies and engaging in interactive student exercises. Students practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises. Discussion, 2 hrs./wk., lab arranged, plus 1 field trip. (Fall)

MIL SCI 1094. Army Doctrine and Team Development — 2 hrs.

Examines the challenges of leading in complex contemporary military operational environments. Dimensions of the cross-cultural challenges of military leadership in a constantly changing world are highlighted and applied to practical leadership tasks and situations. Discussion 2 hrs./wk., lab arranged, plus 1 field trip. (Spring)

MIL SCI 1095. Military Survival Skills — 2 hrs.

This course provides a comprehensive introduction to modern survival skills, blending practical experience with theoretical knowledge. Students will learn to navigate the psychological and physical challenges of survival situations, including managing fear, uncertainty, and stress. Key topics include basic land navigation, first aid and essential survival techniques necessary for increasing resilience and the likelihood of rescue in adverse conditions. While this course does not aim to develop expertise in any single area it offers a well-rounded foundation in survival principles emphasizing risk reduction and preparedness to help prevent survival situations from arising. (Fall and Spring)

MIL SCI 1098. Military Science Leadership Practicum — 4-6 hrs.

A five-week summer program at Fort Knox, Kentucky, designed to provide leadership experiences to sophomores. Successful completion will qualify students to enroll in the ROTC Advanced Course. Prerequisite(s): departmental approval. (Summer)

MIL SCI 3116. Platoon Operations — 3 hrs.

Challenges students to study, practice, and evaluate adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Students receive systematic and specific feedback on their leadership attributes and actions. Based on such feedback, as well as their own self-evaluations, cadets continue to develop their leadership and critical thinking abilities. Discussion, 3 hrs./wk.; lab, 1 hr./wk. Prerequisite(s): departmental approval. (Fall)

MIL SCI 3117. Applied Leadership in Platoon Operations — 3 hrs.

Uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading tactical operations up to platoon level. Students review aspects of combat, stability and support operations. They also conduct military briefings and develop proficiency in garrison operation orders. Discussion, 3 hrs./wk.; lab, 1 hr./wk. Prerequisite(s): departmental approval. (Spring)

MIL SCI 3118. Mission Command and the Army Profession — 3 hrs.

Develops student proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing performance feedback to subordinates. Students assess risk, make ethical decisions, and lead fellow ROTC students. Lessons on military

justice and personnel processes prepare cadets to make the transition to Army officers. Discussion, 3 hrs./wk.; lab, 1 hr./wk. Prerequisite(s): departmental approval. (Fall)

MIL SCI 3119. Mission Command and the Company Grade Officer — 3 hrs.

Explores the dynamics of leading in the complex situations of current military operations in the contemporary operating environment (COE). Students examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. They also explore aspects of interacting with non-government organizations, civilians on the battlefield, and host national support. Discussion, 3 hrs./wk.; lab, 1 hr./wk. Prerequisite(s): departmental approval. (Spring)

MIL SCI 3189. Leadership Lecture — 1-6 hrs.

Lecture and selected readings based on basic and advanced leadership principles and practices. Applicable to all majors and courses of study. May be repeated for maximum of 6 hours. Prerequisite(s): departmental approval. (Fall, Spring, Summer)

MIL SCI 3190. America's Military Past — 3 hrs.

Course is open to all students, however, it is an Army requirement. This course will furnish ROTC Cadets with the methodological tools and materials needed to gain a more detailed understanding of American Military History and to put together a major research paper. "CLASS" will emphasize basic research skills: understanding historiographical debates within a military framework, developing effective note taking, outlining techniques, picking a feasible research topic finding useful primary sources and drawing inferences from them, examining American military campaigns and leaders in order to complete a battle analysis, and short research assignments. (Fall and Spring)

MIL SCI 3192. Leadership Practicum — 4-6 hrs.

A five-week summer program at Fort Knox, Kentucky, designed to provide leadership development and opportunities for students participating in the Advanced Course. Prerequisite(s): departmental approval. (Summer)

MIL SCI 3195. Firearms Safety and Awareness — 3 hrs.

This course is designed to provide students with a comprehensive understanding of firearm safety and responsible handling. The course emphasizes safe handling techniques, proper firearm maintenance, firearm storage and qualification through the Hunter Education and NRA Basic Pistol Qualification programs. To achieve these objectives the course introduces the fundamental principles of marksmanship through three structured modules: Hunter Education, NRA Basics of Pistol Shooting and Iowa Permit to Carry Weapons. Instruction is delivered through a hands-on approach fostering confidence and competence in firearm safety and handling. The primary focus is on building foundational knowledge, promoting safe practices and developing the skills necessary for responsible firearm use. (Fall and Spring)

MKTG: Marketing and Entrepreneurship

Courses

MKTG 2110. Principles of Marketing — 3 hrs.

Conceptual understanding and application of customer determination selection, product management, distribution, pricing considerations, and promotional activities within an economic and business

environment as related to a strategic marketing plan. Prerequisite(s): ECON 1031 or ECON 1041 or ECON 1051. (Fall, Spring, Summer)

MKTG 3113/5113. Consumer Behavior — 3 hrs.

Behavioral science concepts, models, findings and methods applied to the buying process and marketing management decision-making. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Fall and Spring)

MKTG 3114/5114. Family Business Management — 3 hrs.

Family-controlled private and public companies are the dominant form of enterprise worldwide, comprising more than 90% of all businesses. They are critical to the fabric of the Iowa economy, especially in our rural areas. They contribute so much more beyond employment, as they are often integral to the placemaking of our communities. This course covers those businesses, their challenges and opportunities. Prerequisite(s): junior standing. [Same as MGMT 3114/5114] (Fall)

MKTG 3116/5116. Marketing Analytics — 3 hrs.

Qualitative and quantitative analytical methods for collection, interpretation, and presentation of customer, market, and competitor data for marketing management decision-making. Prerequisite(s): MKTG 2110; MGMT 2080; STAT 1772 or equivalent; ECON 2090; ECON 1031 or ECON 1041; ECON 1011; junior standing. (Fall and Spring)

MKTG 3143. Advertising and Promotion — 3 hrs.

Decision making in advertising and consumer promotions, with focus on message strategy, targeting, and formulating highly responsive online campaigns. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Fall and Spring)

MKTG 3146/5146. Digital Advertising — 3 hrs.

Immersive hands-on study of digital advertising techniques and strategies in tradigital, social media, and mobile marketing, including the use of digital analytical tools to measure success. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Fall and Spring)

MKTG 3148/5148. Digital Customer Experience — 3 hrs.

Course will address customer experience development related to the creation of customer-focused digital experiences (websites, apps, augmented reality) that provide value. Research, strategy, planning, designing, prototyping, and measurement will be emphasized. Prerequisite(s): MKTG 2110 or consent of instructor; junior standing. (Fall)

MKTG 3153. Professional Selling — 3 hrs.

Basic concepts and skills of professional selling, including customer analysis, communication skills, effective openings closings, and customer relations; selling skills concepts developed through the extensive use of sales exercises and cases. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Fall and Spring)

MKTG 3154. Sales Management — 3 hrs.

Study of advanced selling techniques, planning account maintenance, strategic sales messaging and an introduction to customer relationship management (CRM) technology. Prerequisite(s): MKTG 2110; MKTG 3153; ECON 1031 or ECON 1041; junior standing. (Spring)

MKTG 3155. Business to Business Marketing — 3 hrs.

The course is designed to provide an opportunity for students to understand managerial issues and challenges involved in the task of making products and services available to business customers. The course focuses on functions and behaviors in essentially an inter-organizational system that is designed to create value by

effectively and efficiently linking points of production and the points of consumption in Business Markets. In essence, Business to Business (B2B) Marketing Management addressed how to understand, create, and deliver value when selling goods and services to other businesses, governments, and institutional customers. Students will learn how business markets differ from consumer markets, assess opportunities in business markets, and make marketing decisions that enable B2B companies to generate and deliver value for themselves, their business partners, and customers. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Fall and Spring)

MKTG 3156. Services Marketing — 3 hrs.

Issues concerning quality customer service and improving business and non-profit strategies in the services industry. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Fall and Spring)

MKTG 3163. Distribution and Logistics — 3 hrs.

Study of behavioral aspects of channel member relationships and third party facilitators; contemporary strategies in managing channel functions of products and services movement information to provide desired customer service levels. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Fall and Spring)

MKTG 3166. Retail Management — 3 hrs.

Examination of strategic retail management, situation analysis including store web, non-store forms of understanding customers gathering information, location planning, managing a retail business, merchandise management, pricing, and promotion. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Spring)

MKTG 3173. Product Management — 3 hrs.

Management of marketing offerings from brand development, through competitive analysis and messaging strategy, to marketing technology and customer experience. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Fall)

MKTG 3176/5176. Global Marketing — 3 hrs.

Assessment, adaptation and implementation of basic marketing principles to compete in the global marketplace utilizing real world scenarios. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Fall)

MKTG 3178/5178. Global Trade Practices — 3 hrs.

Application of processes and requirements for international or trade transactions; course develops knowledge skills required for the Certified Global Business Professional examination utilizing global management and marketing, supply chain, and trade finance tools. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Variable)

MKTG 3179. Cooperative Education in Marketing — 1-6 hrs.

Offered on credit/no-credit basis only. Not accepted for credit toward the Marketing major, but can be used as a university elective. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; UNI cumulative GPA of 2.50 or better; consent of department head. (Fall, Spring, Summer)

MKTG 3595. Value Based Pricing — 3 hrs.

Focus on the marketing task of assessing and recovering value by integrating the economic, behavioral, and psychological dimensions of pricing. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing. (Variable)

MKTG 4150. Advertising Campaign Development — 3 hrs.

Comprehensive development of an integrated advertising campaign created for a national client using relevant marketing data platforms

Course Descriptions

in response to a real-world marketing challenge. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; MKTG 3143 or MKTG 3146/5146 or Instructor approval; junior standing. (Spring)

MKTG 4170/5170. Marketing Strategy — 3 hrs.

Integration of major marketing functions from a managerial perspective. Emphasis on developing marketing strategies and applying strategic marketing decisions. Prerequisite(s): MKTG 2110; MKTG 3113/5113; MKTG 3116/5116; MGMT 2080; STAT 1772 or equivalent; ECON 2090; ECON 1031 or ECON 1041; ECON 1011; senior standing. (Fall and Spring)

MKTG 4198. Independent Study — 1-6 hrs.

Not accepted for credit toward the Marketing major, but can be used as a university elective. Prerequisite(s): MKTG 2110; ECON 1031 or ECON 1041; junior standing; consent of department head. (Fall, Spring, Summer)

MKTG 4595. Internship-Marketing — 2-8 hrs.

Full-time internship in a marketing-related business for a minimum of eight weeks. Maximum of 3 hours may be applied to Marketing major electives category. Prerequisite(s): MKTG 2110; MKTG 3113/5113; MKTG 3116/5116; MGMT 2080; STAT 1772 or equivalent; ECON 2090; ECON 1031 or ECON 1041; ECON 1011; UNI cumulative GPA of 2.50 or better; senior standing; consent of department head. (Fall, Spring, Summer)

MKTG 6170. Marketing Management — 3 hrs.

Integrated and applied approach that utilizes current theory and practice to analyze market data and competitive signals to make informed decisions about customer trends, competitor behaviors, marketing mix, and strategic marketing opportunities. Prerequisite(s): consent of MBA Director. (Variable)

MKTG 6285. Individual Readings — 1-3 hrs.

May be repeated for maximum of 4 hours. Prerequisite(s): consent of department head and MBA Director. (Fall, Spring, Summer)

MKTG 6297. Practicum — 1-3 hrs.

Prerequisite(s): consent of department head and MBA Director. (Fall, Spring, Summer)

MKTG 6299. Research — 1-6 hrs.

Prerequisite(s): consent of department head and MBA Director. (Fall, Spring, Summer)

MKTG 6595. Topics in Marketing — 1-3 hrs.

Selected topics in marketing. May be repeated for maximum of 6 hours. Anticipated typical credit of 1 hour. Prerequisite(s): consent of MBA Director. (Variable)

MUS APPL: Music, Applied

Note: Before registration in Applied Music can be accomplished, the student must: 1) successfully complete an audition in the performance area (for composition students, a portfolio of original compositions must be submitted and accepted in lieu of an audition on an instrument or voice), and 2) meet the proficiency standards of the division. All undergraduate music majors must be enrolled in applied music continuously from the first semester of residence until satisfactory completion of the Senior Recital. It is expected the Senior Recital will be given in the eighth semester of study (seventh semester for students in the Music Education program).

Credit hours for Applied Music study are classified as follows:

Performance -- 3 credit hours

Composition -- 2 or 3 credit hours

B.A. and Music Education -- 2 credit hours

Secondary -- 1 credit hour

Non-Music Major -- 1-2 credit hours

One hour (60 minutes) of individual instruction per week in the principal performing area (or a comparable equivalent arrangement of individual and/or small group instruction) is required for music majors. Practice and performance demands for *Performance* and *Composition* majors are generally more rigorous than those for the *Music Education* and B.A. majors. *Secondary Instrument* students will receive one half hour (30 minutes) of Applied Music instruction each week. *Non-Music* majors will receive either one hour or 30 minutes of instruction depending on the number of credit hours elected. Each student's credit hour load for Applied Music will be determined in consultation with a School of Music advisor in advance of registration. All students in the freshman music core will enroll for 2 semester hours of credit each semester. Students approved for the Performance major under the Bachelor of Music degree will register for 3 semester hours in Applied Music beginning in the *sophomore* year, and Composition majors will register for 3 semester hours in Applied Music beginning in the *junior* year.

Graduate students approved for the Performance, Piano Performance and Pedagogy, Composition, or Conducting majors under the Master of Music degree will register for 2, 3, or 4 (2-4) semester hours of credit in Applied Music during the fall or spring semesters in residence. Number of hours will be determined by the applied instructor and Graduate Coordinator.

The appropriate applied faculty will determine the level of the student's qualifications (MUS APPL 1XXX, 3XXX, 5XXX, 6XXX) by audition and/or previous work on an instrument or in voice. A 6000-level number can be assigned only to graduate students in Performance, Piano Performance and Pedagogy, Composition, and Conducting programs who have satisfactorily completed an audition and are preparing for a graduate major in voice, conducting, instrumental performance, or composition. All other graduate applied students shall be assessed and assigned by the applied teacher to 5000-level.

Courses

MUS APPL 1290. Bassoon.

Private applied music instruction in bassoon for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1300. Flute.

Private applied music instruction in flute for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1310. Oboe.

Private applied music instruction in oboe for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1320. Clarinet.

Private applied music instruction in clarinet for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1330. Applied Jazz Trombone — 1-4 hrs.

One hour (60 minutes) of individual instruction per week in the principal performing area is required for music majors. Secondary instrument students will receive one half hour (30 minutes) of instruction each week. Prerequisite(s): Pass audition for entrance into music program. (Fall and Spring)

MUS APPL 1340. Saxophone.

Private applied music instruction in saxophone for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1350. Horn.

Private applied music instruction in horn for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1360. Cornet-Trumpet.

Private applied music instruction in cornet-trumpet for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1370. Trombone.

Private applied music instruction in trombone for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1380. Euphonium.

Private applied music instruction in euphonium for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1390. Tuba.

Private applied music instruction in tuba for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1400. Percussion.

Private applied music instruction in percussion for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1410. Violin.

Private applied music instruction in violin for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1420. Viola.

Private applied music instruction in viola for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1430. Cello.

Private applied music instruction in cello for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1440. String Bass.

Private applied music instruction in string bass for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1450. Harp.

Private applied music instruction in harp for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1460. Piano.

Private applied music instruction in piano for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1467. Piano Proficiency.

no credit. Required of all undergraduate majors. (Fall and Spring)

MUS APPL 1470. Group Piano.

Group instruction in piano for non-keyboard majors pursuing a degree in music. (Fall and Spring)

MUS APPL 1480. Organ.

Private applied music instruction in organ for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1490. Voice.

Private applied music instruction in voice for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1500. Harpsichord.

Private applied music instruction in harpsichord for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1520. Guitar.

Private applied music instruction in guitar for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1530. Jazz Guitar.

Private applied music instruction in jazz guitar for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1540. Composition.

Private applied music instruction in composition for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1550. Jazz Improvisation.

Private applied music instruction in jazz improvisation for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1560. Jazz Bass.

Private applied music instruction in jazz bass for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1570. Jazz Piano.

Private applied music instruction in jazz piano for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1580. Jazz Saxophone.

Private applied music instruction in jazz saxophone for students pursuing a degree in music. (Fall and Spring)

MUS APPL 1XX5. Applied Music for the Non-Music Major.

Private applied music instruction for students not pursuing a degree program in music. Emphasis on basic skills oriented toward immediate performance needs. Credit normally will not be applied toward music major or minor requirements. (Fall and Spring)

MUS APPL 2600. Applied Piano Beyond Proficiency — 1 hr.

Piano instruction for students in music education and composition/theory programs who need lessons beyond Group Piano Level III. Prerequisite(s): Group Piano, Level III MUS APPL 1470:09 or 10. (Fall and Spring)

MUS APPL 3290/5290. Bassoon.

Private applied music instruction in bassoon for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3300/5300. Flute.

Private applied music instruction in flute for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3310/5310. Oboe.

Private applied music instruction in oboe for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3320/5320. Clarinet.

Private applied music instruction in clarinet for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3330/5330. Applied Jazz Trombone — 1-4 hrs.

One hour (60 minutes) of individual instruction per week in the principal performing area is required for music majors. Secondary instrument students will receive one half hour (30 minutes) of instruction each week. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3340/5340. Saxophone.

Private applied music instruction in saxophone for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

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MUS APPL 3350/5350. Horn.

Private applied music instruction in horn for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3360/5360. Cornet Trumpet.

Private applied music instruction in cornet-trumpet for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3370/5370. Trombone.

Private applied music instruction in trombone for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3380/5380. Euphonium.

Private applied music instruction in euphonium for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3390/5390. Tuba.

Private applied music instruction in tuba for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3400/5400. Percussion.

Private applied music instruction in percussion for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3410/5410. Violin.

Private applied music instruction in violin for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3420/5420. Viola.

Private applied music instruction in viola for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3430/5430. Cello.

Private applied music instruction in cello for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3440/5440. String Bass.

Private applied music instruction in string bass for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3450/5450. Harp.

Private applied music instruction in harp for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3460/5460. Piano.

Private applied music instruction in piano for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3470/5470. Group Piano.

Group instruction in piano for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3480/5480. Organ.

Private applied music instruction in organ for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3490/5490. Voice.

Private applied music instruction in voice for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3500/5500. Harpsichord.

Private applied music instruction in harpsichord for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3520/5520. Guitar.

Private applied music instruction in guitar for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3530/5530. Jazz Guitar.

Private applied music instruction in jazz guitar for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3540/5540. Composition.

Private applied music instruction in composition for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3550/5550. Jazz Improvisation.

Private applied music instruction in jazz improvisation for advanced students pursuing a degree in music. Prerequisite(s): junior standing; permission of instructor. (Fall and Spring)

MUS APPL 3560/5560. Jazz Bass.

Private applied music instruction in jazz bass for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3570/5570. Jazz Piano.

Private applied music instruction in jazz piano for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3580/5580. Jazz Saxophone.

Private applied music instruction in jazz saxophone for advanced students pursuing a degree in music. Prerequisite(s): junior standing. (Fall and Spring)

MUS APPL 3780. Junior Recital.

no credit. Required of all juniors in the Performance major. (Fall and Spring)

MUS APPL 4890. Senior Recital.

no credit. Required of all seniors. Prerequisite: 3 hours at 100/3000/4000-level in major applied area. (Fall and Spring)

MUS APPL 6210. Instrumental Conducting — 2-4 hrs.

Advanced training in instrumental conducting. Prerequisite(s): admission to Master of Music in Conducting. (Variable)

MUS APPL 6220. Choral Conducting — 2-4 hrs.

Advanced training in choral conducting. Prerequisite(s): admission to Master of Music in Conducting. (Variable)

MUS APPL 6285. Readings.

Guided independent research leading to significant project, culminating paper or thesis. May be repeated on the same or different topics. (Variable)

MUS APPL 6286. Studies In _____.

May be repeated on same or different topics. (Variable)

MUS APPL 6290. Bassoon.

Graduate level applied bassoon instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6300. Flute.

Graduate level applied flute instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6310. Oboe.

Graduate level applied oboe instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6320. Clarinet.

Graduate level applied clarinet instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6330. Applied Jazz Trombone — 1-4 hrs.

Graduate level applied jazz trombone instruction appropriate to a student admitted to the Performance or Jazz Pedagogy programs. Prerequisite(s): Pass audition to be accepted as a graduate student in Jazz Trombone Performance or Jazz Pedagogy. (Fall and Spring)

MUS APPL 6340. Saxophone.

Graduate level applied saxophone instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6350. Horn.

Graduate level applied horn instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6360. Cornet-Trumpet.

Graduate level applied cornet-trumpet instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6370. Trombone.

Graduate level applied trombone instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6380. Euphonium.

Graduate level applied euphonium instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6390. Tuba.

Graduate level applied tuba instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6400. Percussion.

Graduate level applied percussion instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6410. Violin.

Graduate level applied violin instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6420. Viola.

Graduate level applied viola instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6430. Cello.

Graduate level applied cello instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6440. String Bass.

Graduate level applied string bass instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6450. Harp.

Graduate level applied harp instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6460. Piano.

Graduate level applied piano instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6470. Group Piano.

Graduate level group piano instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6480. Organ.

Graduate level applied organ instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6490. Voice.

Graduate level applied voice instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6500. Harpsichord.

Graduate level applied harpsichord instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6520. Guitar.

Graduate level applied guitar instruction appropriate to a student admitted to the Performance program. (Fall and Spring)

MUS APPL 6530. Jazz Guitar.

Graduate level applied jazz guitar instruction appropriate to a student admitted to the Performance and/or Jazz Pedagogy program. (Fall and Spring)

MUS APPL 6540. Composition.

Graduate level applied composition instruction appropriate to a student admitted to the Composition program. (Fall and Spring)

MUS APPL 6550. Jazz Improvisation.

Graduate level applied jazz improvisation instruction appropriate to a student admitted to the Performance and/or Jazz Pedagogy program. (Fall and Spring)

MUS APPL 6560. Jazz Bass.

Graduate level applied jazz bass instruction appropriate to a student admitted to the Performance and/or Jazz Pedagogy program. (Fall and Spring)

MUS APPL 6570. Jazz Piano.

Graduate level applied jazz piano instruction appropriate to a student admitted to the Performance and/or Jazz Pedagogy program. (Fall and Spring)

MUS APPL 6580. Jazz Saxophone.

Graduate level applied jazz saxophone instruction appropriate to a student admitted to the Performance and/or Jazz Pedagogy program. (Fall and Spring)

MUS APPL 6880. Graduate Recital.

no credit. Study of literature programmed for required graduate recitals. Required for students enrolled in Master of Music - Major in Performance, Conducting, Composition, or Jazz Pedagogy during the semester in which required recital occurs. Prerequisite(s): graduate standing; departmental approval or consent of applied instructor. (Fall and Spring)

MUS APPL 6890. Diploma Recital.

Required for students enrolled in Artist Diploma I and Artist Diploma II Certificate Programs during the semester(s) in which student presents recital. May be repeated once by students in Artist Diploma II program. Prerequisite(s): admission to Artist Diploma I or II program; departmental approval or written consent of applied instructor. (Fall and Spring)

MUS ED: Music Education and Methods

Courses

MUS ED 1100. Instrumental Techniques — 1 hr.

Areas: Woodwinds I, Woodwinds II, high brass, low brass, strings, percussion. Emphasis on pedagogy relevant to the elementary or beginning student musician. One hour credit for each area. Areas may not be repeated for additional credit. (Variable)

MUS ED 1750. Guitar in the Classroom — 2 hrs.

Emphasizes accompanimental skills, fingerstyle and pickstyle, and scale/chord foundations in the keys most used for guitar; basic classical guitar technique is used in reading standard notation within the first four frets (first position). Learned repertoire includes traditional roots music (folk and blues) as well as popular styles. (Variable)

MUS ED 3010. Performing Arts Management Internship — 1-3 hrs.

Students gain practical experience working in an arts organization. May be repeated. Prerequisite(s): major in B.A. Music Performing Arts Management Specialization; junior standing. (Variable)

MUS ED 3020. Music Technology Internship — 1 hr.

Students gain practical experience working for an organization in which musical technology is a significant part of the services it offers. May be repeated. Prerequisite(s): major in B.A. Music Technology Specialization; junior standing. (Variable)

MUS ED 3030. Internship in String Pedagogy — 1 hr.

Students will complete internships in UNI Suzuki Program and Price Lab School, or School of Music non-major string students. May be repeated. Prerequisite(s): major in B.A. Music String Pedagogy Specialization; junior standing. (Variable)

MUS ED 3160. Popular Music Methods — 3 hrs.

Popular Music Methods provides skills to teach popular music in a classroom setting. Students learn the pedagogical approaches to teaching popular music as well as basic skills on popular musical instruments (guitar, bass, drumset, keyboard, ukulele, turntable). Prerequisite(s): junior standing or consent of instructor. (Fall and Spring)

MUS ED 3300/5300. Vocal Pedagogy and Vocology — 2 hrs.

Techniques of diagnosing and discussing vocal problems as related to the singing voice, and a survey of pedagogic materials. Actual teaching experience under supervision. Prerequisite(s): music major; junior standing. (Spring)

MUS ED 3380/5380. Instrumental Pedagogy — 2 hrs.

Topics vary depending upon instrument and instructor. Advanced techniques of solving physiological and psychological problems of performance. May be repeated with advisor approval. Prerequisite(s): MUS ED 1100 or teaching experience; junior standing. (Variable)

MUS ED 3410. Elementary/General Music Methods — 3 hrs.

Objectives and materials for and methods of teaching general music in public schools. Emphasis on contemporary approaches: Orff, Kodaly, Dalcroze, Integrated Arts, and other methodologies. Prerequisite(s): EDUC 2344; junior standing or instructor consent. (Variable)

MUS ED 3450/5450. Developments and Trends in Music Education — 3 hrs.

Evolving issues important to music educators. May be repeated for credit. Prerequisite(s): EDUC 2344; junior standing. (Variable)

MUS ED 3480/5480. Piano Pedagogy: Elementary — 2 hrs.

Methods and materials related to the teaching of the elementary piano student, including psychological and technical development. Addresses business aspects. Observations of teaching required. Prerequisite(s): junior standing. (Variable)

MUS ED 3495/5495. Music Learning and Motivation — 2 hrs.

Exploration of theories and concepts in music learning and pedagogy, including achievement goals, motivation, implementation and assessment. Students will gain knowledge of how to influence students' motivation and intervention strategies to create meaningful lessons. Prerequisite(s): junior standing. (Variable)

MUS ED 3640. Instrumental Methods: Jazz Band — 1 hr.

Jazz band methods and pedagogy for lessons and ensembles in the K-12 setting. Emphasis on rehearsal techniques and materials. Prerequisite(s): EDUC 2344 with grade of C or higher; junior standing. (Spring)

MUS ED 3660. Field Experience in Music Education — 1 hr.

Level III field experience in music education (25 hours). Prerequisite(s): Completion of Level II Field Experience; EDUC 2344 (with a grade of C or higher); MUS TECH 1210 (with a grade of C or higher) or corequisite MUS TECH 1220; acceptance into Teacher Education Program. (Fall)

MUS ED 3670. Choral Methods for Instrumental Majors — 1 hr.

Methods of teaching singing; attention to vocal pedagogy, diction, and appropriate choral repertoire for elementary and secondary choral ensembles. Prerequisite(s): Acceptance into Instrumental Music Education program, EDUC 2344 (with grade of C or higher). (Spring)

MUS ED 3680. Instrumental Methods for Choral Majors — 1 hr.

Introduction to wind, percussion, and string instruments; attention to instrumental methods, pedagogy and appropriate literature. Prerequisite(s): Acceptance into Choral/General Music Ed. program; EDUC 2344 (with grade of C or higher). (Spring)

MUS ED 3970/5970. Instrumental Upkeep and Repair — 2 hrs.

Areas: woodwinds, strings, brass, and percussion. Laboratory course with practical projects undertaken. Offered for instrumental majors. Prerequisite(s): junior standing. (Variable)

MUS ED 4161. Instrumental Methods: Strings — 1 hr.

String methods and pedagogy for lessons and ensembles in a K-12 setting. Prerequisite(s): MUS ED 1100 section 06; EDUC 2344 with grade of C or higher; junior standing. (Spring)

MUS ED 4162. Instrumental Methods: Marching Band — 1 hr.

Fundamentals training, music selection and arranging, administrative approaches, and drill charting for school marching bands. Prerequisite(s): EDUC 2344 with grade of C or higher; junior standing. (Fall)

MUS ED 6210. Research Methodology in Music Education — 3 hrs.

Introduction to various research methodologies used in music education. Required of graduate Music Education majors. (Variable)

MUS ED 6285. Readings — 1-3 hrs.

Readings in Piano Pedagogy - 1-2 hrs. Independent readings from a selected list as approved by piano pedagogy instructor and department head. May be repeated on the same or different topics.

Readings in Music Education - 1-3 hrs. Readings in music education not normally covered in other courses. May be repeated on the same or different topics. Prerequisite(s): consent of instructor. (Variable)

MUS ED 6286. Studies in _____.

May be repeated on the same or different topics. (Variable)

MUS ED 6299. Research.

Guided independent research leading to significant project, culminating paper or thesis. Prerequisite(s): consent of department. (Variable)

MUS ED 6300. Foundations of Music Education — 3 hrs.

Examination of the foundations and underlying principles of music education. (Variable)

MUS ED 6500. Projects in Music Education — 1-3 hrs.

Students electing the non-thesis option will enroll in this course upon completion of course work. Course content consists of writing a final research paper. Students must enroll in this course continuously until the final research project has been completed. (Variable)

MUS ED 6520. Jazz Pedagogy — 2 hrs.

Methods and materials related to teaching of jazz, including jazz ensemble rehearsal techniques, improvisation, jazz theory, and listening techniques. Prerequisite(s): graduate standing or consent of instructor. (Variable)

MUS ED 6550. School Music Administration and Classroom Management — 3 hrs.

Philosophy, management, and public relations techniques and procedures associated with administration of elementary and secondary music programs. Prerequisite(s): graduate standing or consent of instructor. (Variable)

MUS ED 6570. Piano Pedagogy: Intermediate — 2 hrs.

Methods and materials related to teaching of the intermediate piano student including psychological development, repertory, technique, the transfer student, and use of technology. Specific techniques related to teaching concept of artistry addressed. Observation of teaching required. (Variable)

MUS ED 6580. Piano Pedagogy: Group and Adult — 2 hrs.

Materials and instructional techniques related to use of electronic piano lab, teaching of groups/class piano, and teaching adults. Exploration of curriculum planning and the benefits of group instruction in independent studio, public school, and university. (Variable)

MUS ED 6600. Piano Pedagogy: Internship — 1 hr.

Piano teaching assignments, determined in consultation with supervisor. Students in M.M. Piano Performance and Pedagogy program must enroll in two separate 1-hour internships. Corequisite(s): MUS ED 3480/5480, MUS ED 3495/5495, MUS ED 6570, or MUS ED 6580. (Variable)

MUS ED 6820. Seminar: Music Learning and Behavior — 3 hrs.

Exploration of behavioral, cognitive, and developmental theories affecting music teaching and learning. Required of graduate Music Education majors. (Variable)

MUS ED 6870. Measurement and Evaluation in Music — 3 hrs.

Study of the measurement and evaluation techniques for music aptitude and achievement. Emphasis on developing teacher-made tests and available standardized music tests. (Variable)

MUS ENS: Music Ensembles

Organization and Ensemble Credit: 1 semester hour of credit may be earned by a student who completes a semester in an approved ensemble. Ensembles may be repeated for credit. Maximum of 2 credits for organization and ensemble participation may be earned in

any one semester. For students who have been awarded two or three music scholarships or are majoring in more than one instrument/voice, a maximum of 3 credits for organization and ensemble participation may be earned in any one semester (with approval from the Director of the School of Music). Maximum of 2 credits in Jazz Band I (except for B.M. Music, Jazz Specialization majors, who will fulfill the large ensemble requirement by taking 8 hours of large jazz ensembles - section 01, 02, or 03) or Chamber Singers may be counted by music majors toward departmental ensemble requirement (or electives for B.A. students). All music ensembles are open to any university student by audition.

Participation in one of the large organizations as listed in the School of Music Ensembles section is required of all Music Majors. These are the only large organizations which may be used to satisfy departmental large organization requirements. Non-music majors are welcome to audition for all ensembles listed, with the exception of the marching band which is open to all instrumentalists with previous experience.

Courses

MUS ENS 1100. Chorus — 0-1 hrs.

Choral performance ensembles specializing in choral literature. (Concert Chorale, Chamber Singers, UNI Singers, Varsity Men's Glee Club, Cecilians, Cantorei). 0 hours is participation credit only. (Fall and Spring)

MUS ENS 1120. Ensemble — 0-1 hrs.

Instrumental performance ensembles specializing in literature appropriate to the instruments. (Chamber Wind Ensemble, Flute Choir, Kaji-Daiko-Taiko Ensemble, West African Drum Ensemble, Chamber Woodwind Ensemble, Percussion Ensemble, Tuba-Euphonium Ensemble, Horn Choir, Clarinet Ensemble, Saxophone Ensemble, New Music Ensemble, Laptop Ensemble, etc.). 0 hours is participation credit only. (Variable)

MUS ENS 1121. Chamber Music — 1 hr.

Chamber music ensemble (small ensemble without conductor - strings, winds, brass, percussion, or mixed). Prerequisite(s): instructor consent required. (Fall and Spring)

MUS ENS 1150. Band — 0-1 hrs.

Band performance ensembles specializing in a range of concert literature appropriate to the ensemble. Wind Ensemble (Offered Fall and Spring); Symphonic Band (Offered Fall and Spring); Concert Band (Offered Spring); Marching Band (Offered Fall); Pep Band (Offered Spring with course meetings from late October to early March). 0 hours is participation credit only. (Fall and Spring)

MUS ENS 1160. Jazz Band — 0-1 hrs.

Instrumental performance ensemble specializing in jazz literature. 0 hours is participation credit only. (Fall and Spring)

MUS ENS 1170. Orchestra — 0-1 hrs.

Instrumental performance ensemble specializing in orchestral literature. 0 hours is participation credit only. (Fall and Spring)

MUS ENS 1180. Marching Band — 0-1 hrs.

Instrumental performance ensemble specializing in marching band literature. 0 hours is participation credit only. (Fall)

MUS ENS 1190. Opera — 0-1 hrs.

Vocal performance ensemble specializing in opera literature. 0 hours is participation credit only. (Fall and Spring)

Course Descriptions

MUS ENS 3100/5100. Chorus — 0-1 hrs.

(Concert Chorale, UNI Singers, Varsity Men's Glee Club, Cecilians, Cantorei.) 0 hours is participation credit only. Prerequisite(s): junior standing. (Fall and Spring)

MUS ENS 3120/5120. Ensemble — 0-1 hrs.

(Chamber Wind Ensemble, Flute Choir, Kaji-Daiko-Taiko Ensemble, West African Drum Ensemble, Chamber Woodwind Ensemble, Percussion Ensemble, Tuba-Euphonium Ensemble, Horn Choir, Clarinet Ensemble, New Music Ensemble, Laptop Ensemble, etc.). 0 hours is participation credit only. Prerequisite(s): junior standing. (Fall and Spring)

MUS ENS 3121/5121. Chamber Music — 1 hr.

Chamber music ensemble (small ensemble without conductor - strings, winds, brass, percussion, or mixed). Prerequisite(s): instructor consent required; junior standing. (Variable)

MUS ENS 3150/5150. Band — 0-1 hrs.

Wind Ensemble (offered Fall and Spring); Symphonic Band (offered Fall and Spring); Concert Band (offered Spring); Marching Band (offered Fall); Pep Band (offered spring with course meetings from late October to early March. 0 hours is participation credit only. Prerequisite(s): junior standing. (Fall and Spring)

MUS ENS 3160/5160. Jazz Band — 0-1 hrs.

Instrumental performance ensemble specializing in jazz literature. 0 hours is participation credit only. Prerequisite(s): junior standing. (Fall and Spring)

MUS ENS 3170/5170. Orchestra — 0-1 hrs.

Instrumental performance ensemble specializing in orchestral literature. 0 hours is participation credit only. Prerequisite(s): junior standing. (Fall and Spring)

MUS ENS 3180/5180. Marching Band — 0-1 hrs.

Instrumental performance ensemble specializing in marching band literature. 0 hours is participation credit only. Prerequisite(s): junior standing. (Fall)

MUS ENS 3190/5190. Opera — 1 hr.

Vocal performance ensemble specializing in opera literature. Prerequisite(s): junior standing; consent of instructor. (Fall and Spring)

MUS HIST: Music History

Courses

MUS HIST 1010. History of Music I: Antiquity Through Baroque — 3 hrs.

Survey of musical trends from Antiquity through Baroque. Emphasis on music listening techniques. (Variable)

MUS HIST 1020. History of Music II: Classical, Romantic, Twentieth, and Twenty-First Century — 3 hrs.

Continuation of MUS HIST 1010. Survey of musical trends from the Classical period to the present. (Variable)

MUS HIST 1030. History of Music III: Romantic, Twentieth, and Twenty-First Centuries — 3 hrs.

Continuation of MUS HIST 1020. Survey of musical trends from the romantic era to the present (1800-present). Prerequisite(s): MUS HIST 1010; MUS HIST 1020 with a grade of C or higher. (Variable)

MUS HIST 3200/5200. Topics in Music History and Culture — 3 hrs.

Study of music history (specific topics vary) including historical perspective in relation to style and development of music, and the

function of music in society and culture. The course may be repeated for credit on a different topic. Prerequisite(s): Undergraduates: successful completion of MUS HIST 1020 and junior standing. Graduates: successful completion of Music History diagnostic exam, or MUS HIST 3800/5800. (Fall and Spring)

MUS HIST 3300/5300. History of Opera — 3 hrs.

Development of opera from its inception (ca. 1600) to present. Prerequisite(s): junior standing. (Variable)

MUS HIST 3510/5510. Music of World Cultures — 3 hrs.

Study of non-Western music: Africa, Islam, India, Indo-China, Indonesia, China, and Japan, and role of music in these cultures. Prerequisite(s): junior standing. (Variable)

MUS HIST 3600/5600. Jazz History and Styles — 3 hrs.

Evolution of jazz styles and their relationship to social, economic, and political moods of the period; in-depth and detailed study of history and development of jazz in America. Prerequisite(s): junior standing. (Variable)

MUS HIST 3800/5800. Music History Survey for Graduates — 1-2 hrs.

Review of various style periods, media, and forms in music history of our culture. Required of all graduate students who do not demonstrate adequate proficiency as a result of the Graduate Music History Diagnostic Examination. May be repeated for credit. Does not count toward minimum degree requirements. Prerequisite(s): junior standing. (Variable)

MUS HIST 4194. Senior Thesis I — 2 hrs.

Focus on development and approval of thesis topic. Followed by MUS HIST 4195 Senior Thesis II. Prerequisite(s): MUS HIST 3XXX, senior standing and consent of instructor. (Fall)

MUS HIST 4195. Senior Thesis II — 2 hrs.

Continuation of MUS HIST 4194 Senior Thesis I. Focuses on completion of thesis and public presentation. Development and approval of thesis topic followed by completion of thesis and public presentation. Prerequisite(s): MUS HIST 3XXX, senior standing and consent of instructor. (Spring)

MUS HIST 6000. Foundations of Musicology — 3 hrs.

Preparation for graduate level work in musicology; includes research and writing techniques that will prepare students for writing a scholarly paper, introduction to and readings in musicology, and concurrent online review of music history fundamentals as determined by diagnostic result. (Fall)

MUS HIST 6285. Readings in Music History — 1-3 hrs.

May be repeated on the same or different topics. Prerequisite(s): consent of Graduate Coordinator in Music. (Variable)

MUS HIST 6286. Studies in _____.

May be repeated on the same or different topics. (Variable)

MUS HIST 6289. Seminar in Music History — 3 hrs.

Musicological research into the various areas of music. May be repeated on different topics. (Variable)

MUS HIST 6299. Research.

Guided independent research leading to/culminating in thesis. Prerequisite(s): consent of department. (Variable)

MUS LIT: Music Literature

Courses

MUS LIT 3200/5200. Performance Literature: _____ — 2 hrs.

Study of performance literature available for specific instrument or voice. Combination ensemble-literature course for the performer. MUS LIT 3200/5200(g)-01. Woodwinds. (Variable) MUS LIT 3200/5200(g)-02. Brass. (Variable) MUS LIT 3200/5200(g)-03. Piano I. (Offered odd Falls) MUS LIT 3200/5200(g)-04. Piano II. (Offered even Springs) MUS LIT 3200/5200(g)-05. Organ. (Variable) MUS LIT 3200/5200(g)-06. Strings. (Variable) MUS LIT 3200/5200(g)-07. Percussion. (Variable) MUS LIT 3200/5200(g)-08. Voice I, Survey of Voice Lit. Survey of classical vocal literature with emphasis on style, interpretation, and historical context. (Variable) MUS LIT 3200/5200(g)-09. Voice II, Special Topics in Voice Literature: Study of special topics in voice literature with emphasis on style, interpretation, and historical context. (Variable) Prerequisite(s): junior standing. (Variable)

MUS LIT 3310/5310. History and Literature of Large Choral Forms — 3 hrs.

Development of large choral forms from the Renaissance to present. Emphasis on the Mass, cantata, oratorio, passion, anthem, and contemporary uses of the chorus. Prerequisite(s): junior standing. Undergraduates must have completed or be enrolled in MUS THEO 3100. (Variable)

MUS LIT 3400/5400. History and Literature of the Orchestra — 3 hrs.

Orchestral literature from mid-18th century to present. Emphasis on structure of the symphony as a form and growth of the orchestra as an ensemble. Prerequisite(s): junior standing. Undergraduates must have completed or currently be enrolled in MUS THEO 3100. (Variable)

MUS LIT 3420/5420. History and Literature of the Wind Band — 3 hrs.

Growth and development of wind music from Gabrieli to present. Prerequisite(s): junior standing. Undergraduates must have completed or be enrolled for MUS THEO 3100. (Variable)

MUS LIT 6285. Readings.

May be repeated on the same or different topics. (Variable)

MUS LIT 6286. Studies in _____.

May be repeated on the same or different topics. (Variable)

MUS LIT 6299. Research.

Guided independent research leading to culminating paper or thesis. Prerequisite(s): consent of department. (Variable)

MUS TECH: Music Techniques

Courses

MUS TECH 1100. Double Reed Making Techniques — 1 hr.

Instruction in the techniques of making and adjusting bassoon, oboe, and English horn reeds. Section 01 for bassoon player; Section 02 for oboe/English horn players. May be repeated for credit. (For freshmen/sophomores.) (Fall and Spring)

MUS TECH 1170. Conducting I--Instrumental — 2 hrs.

Beginner training in instrumental conducting. Required of all instrumental music majors on teaching program. Prerequisite(s): MUS THEO 1120; MUS THEO 1140. (Fall)

MUS TECH 1180. Conducting I--Choral — 2 hrs.

Beginner training in choral conducting and rehearsal techniques. Required on the teaching degree for voice majors. Prerequisite(s): MUS THEO 1120; MUS THEO 1140. (Fall)

MUS TECH 1210. Conducting II--Instrumental — 3 hrs.

Advanced training in instrumental conducting with emphasis on orchestral and band scores and literature for small and large ensembles. Required of all instrumental music majors on teaching program. Prerequisite(s): MUS TECH 1170 (minimum grade of C). (Spring)

MUS TECH 1220. Conducting II--Choral — 3 hrs.

Training in choral conducting, rehearsal techniques, performance practices, and choral materials. Required on the teaching degree for voice majors and those keyboard majors who do not take MUS TECH 1210. Prerequisite(s): MUS TECH 1180 (minimum grade of C). (Spring)

MUS TECH 1300. Diction for Singers I — 1 hr.

An introductory study of the International Phonetic Alphabet, its application to English and Italian lyric diction for singing, and a survey of relevant recordings. Prerequisite(s): enrollment as a music major. (Spring)

MUS TECH 1310. Diction for Singers II — 1 hr.

A continuation in the study of the International Phonetic Alphabet, its application to German and French lyric diction for singing, and a survey of relevant recordings. Prerequisite(s): MUS TECH 1300. (Fall)

MUS TECH 1450. Vocal Coaching — 1-2 hrs.

Exploration of style, interpretation and lyric diction in the singer's repertoire. May be repeated for credit. Prerequisite(s): sophomore standing; consent of instructor; enrolled as music major. (Fall and Spring)

MUS TECH 1500. Instrumental Jazz Improvisation - Theory — 1 hr.

Elements of jazz theory, including ear-training and keyboard skills; preparation for jazz improvisation classes. Prerequisite(s) or corequisite(s): MUS THEO 1110 or consent of instructor. (Spring)

MUS TECH 1530. Instrumental Jazz Improvisation I — 1 hr.

Elements of jazz improvisation for instrumentalists. Prerequisite(s): For freshmen/sophomores: consent of instructor. (Fall)

MUS TECH 1550. Instrumental Jazz Improvisation II — 1 hr.

Elements of jazz improvisation - intermediate level. Prerequisite(s): For freshmen/sophomores: MUS TECH 1500; MUS TECH 1530; or consent of instructor. (Fall)

MUS TECH 1600. Opera Performance I — 1 hr.

Lab course exploring movement, imagination, and the relationship between words and music. A wide variety of acting exercises (improvisation, movement work, etc.) are used to deepen the understanding of and proficiency in performing art songs, arias, and music theatre numbers. May be repeated for credit. Prerequisite(s): ability to read and process music. (Variable)

MUS TECH 3100/5100. Double Reed Making Techniques — 1 hr.

Instruction in the techniques of making and adjusting bassoon, oboe, and English horn reeds. Section 01 for bassoon player; section 02 for

Course Descriptions

oboe/English horn players. May be repeated for credit. For juniors/seniors/graduates. Prerequisite(s): junior standing. (Fall and Spring)

MUS TECH 3130/5130. Arts Entrepreneurship I — 3 hrs.

Overview of topics, tools and techniques necessary for successful pursuit of a management career in visual and performing arts. Focus areas including leadership, organizational dynamics and career planning. Prerequisite(s): junior standing. (Variable)

MUS TECH 3140/5140. Arts Entrepreneurship II — 3 hrs.

Emphasis on understanding of copyright, publicity rights, trademarks, finance, labor law, and First Amendment rights. Practical exercises in negotiation, contract development, budgeting and business plan creation. Prerequisite(s): MUS TECH 3130/5130; junior standing. (Variable)

MUS TECH 3210/5210. Conducting III--Instrumental — 2 hrs.

Techniques of conducting band and orchestral works; score study and analysis of major works representing all style periods. Class work includes conducting major works in rehearsal. May be repeated for credit. Prerequisite(s): MUS TECH 1210; junior standing. (Variable)

MUS TECH 3250/5250. Alexander Technique for Musicians — 2 hrs.

Introduction to the principles of Alexander Technique and its application to music study and performance. Alexander Technique is a way of working to improve ease of movement, develop greater poise and confidence in performance of various activities, and preventing or recovering from injury. Prerequisite(s): junior standing. (Fall)

MUS TECH 3350/5350. Accompanying — 1 hr.

The art of accompanying, both vocal and instrumental literature. Practical experience as accompanist for student soloists in public performance. May be taken twice for credit. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): for undergraduates: MUS APPL 1460, MUS APPL 3460/5460, or consent of instructor. For graduates: MUS APPL 1460, MUS APPL 3460/5460, MUS APPL 6460, or consent of instructor. (Fall and Spring)

MUS TECH 3450/5450. Vocal Coaching — 1-2 hrs.

Exploration of style, interpretation and lyric diction in the singer's repertoire. May be repeated for credit. Prerequisite(s): junior standing; consent of instructor; enrolled as music major. (Fall and Spring)

MUS TECH 3500/5500. Instrumental Jazz Improvisation - Theory — 1 hr.

Elements of jazz theory, including ear-training and keyboard skills; preparation for improvisation. Prerequisite(s): consent of instructor. For juniors/seniors and graduate students. (Spring)

MUS TECH 3530/5530. Instrumental Jazz Improvisation I — 1 hr.

Elements of jazz improvisation for instrumentalists. Prerequisite(s): junior standing; consent of instructor. (Fall)

MUS TECH 3550/5550. Instrumental Jazz Improvisation II — 1 hr.

Elements of jazz improvisation for instrumentalists - intermediate level. Prerequisite(s): junior standing; MUS TECH 3500/5500; MUS TECH 3530/5530; or consent of instructor. (Fall)

MUS TECH 3610/5610. Opera Performance II — 2 hrs.

Advanced study of operatic material exploring emotional and psychological construction of a character and developing performing skills to create and sustain a role. Audition required. May be repeated for credit. Prerequisite(s): MUS TECH 1600 or consent of instructor; junior standing. (Variable)

MUS TECH 4130. Senior Project, Performing Arts Management.

0 hrs. Student will develop and complete a comprehensive Performing Arts Management project approved by the instructor. Credit/no credit only. Prerequisite(s): major in B.A. Music Performing Arts Management Specialization; senior standing. (Variable)

MUS TECH 6230. Advanced Vocal Performance — 1 hr.

Performance seminar focusing on advanced performance issues in vocal literature, including interpretation, and presentation. Required each semester in residence for all graduate voice students. Prerequisite(s): admission to M.M. in Voice or consent of instructor. (Fall and Spring)

MUS TECH 6285. Readings.

May be repeated on the same or different topics. (Variable)

MUS TECH 6286. Studies in _____.

May be repeated on the same or different topics. (Variable)

MUS TECH 6299. Research.

Guided independent research leading to significant project, culminating paper or thesis. Prerequisite(s): consent of department. (Variable)

MUS THEO: Music Theory

Courses

MUS THEO 1100. Introduction to Music Theory — 2 hrs.

Basic skills and vocabulary. For non-music majors with limited background in music fundamentals or as preparation for music major theory courses. Emphasis on notation, key/time signatures, rhythm, and aural training. (Variable)

MUS THEO 1110. Theory I — 2 hrs.

Review of basic music fundamentals and vocabulary, including pitch, rhythm, meter, scales, and key signatures. Writing/analysis techniques in diatonic harmony including intervals, triads and seventh chords, figured bass, lead-sheet notation, Roman Numeral analysis, cadences and harmonic rhythm. Study of melodic characteristics, sequences, and embellishing tones. Corequisite(s): for Music majors and minors only: MUS THEO 1130. (Fall)

MUS THEO 1120. Theory II — 2 hrs.

Introduction to two-voice counterpoint; four-part voice-leading and part-writing principles in diatonic harmony, including chords in all positions. Melodic principles, organization and composition; principles of harmonization with functional tonality; harmonizing and part-writing a melody for SATB. Prerequisite(s): MUS THEO 1110 with grade of C or higher, or placement by exam. Corequisite(s): for Music majors and minors only: MUS THEO 1140. (Spring)

MUS THEO 1130. Musicianship Lab I — 1 hr.

Development of critical listening skills through melodic/rhythmic dictation and error detection; identification of meters, intervals, tetrachords/major and minor scale forms, and triad qualities; harmonic dictation with simple phrase chord progressions. Development of music reading skills of tetrachords major/minor scales forms; intervals within an octave; triads and simple phrase chord progressions; melodies in treble/bass clefs with stepwise motion and skips within the tonic dominant triads; rhythms in simple compound meters, with beat patterns including divisions and subdivisions. Corequisite(s): MUS THEO 1110. (Fall and Spring)

MUS THEO 1140. Musicianship Lab II — 1 hr.

Continuation of Musicianship Lab I with further development of critical listening skills including melodic/rhythmic dictation and

error detection/correction; identification of simple, compound and harmonic intervals, modes, whole tone and chromatic scales, and seventh chord qualities; harmonic dictation including all diatonic chords. Continuation of Musicianship Lab I with further development of music reading skills of modes, whole tone and chromatic scales; focus on larger intervals; seventh chords and harmonic progressions including all diatonic chords; melodies with more advanced diatonic skips scalar basis, and some alto/tenor clefs; rhythms with focus on syncopation, inclusion of ties and rests, borrowed rhythms, triplets, and meters other than those with a quarter-note and dotted quarter-note beat levels. Prerequisite(s): MUS THEO 1110; MUS THEO 1130 with a C or higher. Corequisite(s): MUS THEO 1120. (Fall and Spring)

MUS THEO 1150. Aural Training I — 1 hr.

Development of critical listening skills through melodic/rhythmic dictation and error detection; identification of meters, intervals, tetrachords, major and minor scale forms, and triad qualities; harmonic dictation with simple phrase chord progressions. Corequisite(s): MUS THEO 1110; MUS THEO 1250. (Fall)

MUS THEO 1160. Aural Training II — 1 hr.

Continuation of Aural Training I with more advanced development of critical listening skills. Melodic/rhythmic dictation and error detection/correction; identification of simple, compound and harmonic intervals, modes, whole tone and chromatic scales; seventh-chord-quality identification and harmonic dictation including all diatonic chords. Prerequisite(s): MUS THEO 1150 with grade of C or higher, MUS THEO 1110 and MUS THEO 1250 with a grade of C or higher, or placement by exam. Corequisite(s): MUS THEO 1120; MUS THEO 1260. (Spring)

MUS THEO 1180. Introduction to Composition — 2 hrs.

Acquaints students with the rudiments of compositional techniques - music notation, generating and developing materials, and idiomatic writing for instruments and voice. Designed for both major and non-major compositional study. Required for all beginning Composition Majors. (Variable)

MUS THEO 1250. Sight-Singing I — 1 hr.

Development of music reading skills using tetrachords, major and minor scales, intervals within the octave, triads, and simple phrase chord progressions; sight reading of treble and bass clef melodies comprised of stepwise motion and skips within the tonic and dominant triads; rhythmic reading in simple and compound meters using division and subdivision of the beat. Corequisite(s): MUS THEO 1110; MUS THEO 1150. (Fall)

MUS THEO 1260. Sight-Singing II — 1 hr.

Continuation of Sight Singing I with further development of music reading skills using modes and the whole tone and chromatic scales; focus on diatonic motion that includes melodic use of all diatonic triads and seventh chords and more advanced diatonic skips; introduction to alto/tenor clefs; rhythmic reading using ties, rests, syncopation, borrowed rhythms, quintuplets and meters other than those with a quarter-note beat. Prerequisite(s): MUS THEO 1110, MUS THEO 1150, and MUS THEO 1250 with grade of C or higher, or placement by exam. Corequisite(s): MUS THEO 1120; MUS THEO 1160. (Spring)

MUS THEO 1300. Topics in Music Composition — 2 hrs.

Acquaints students with the rudiments of compositional techniques: acoustic music techniques, or electronic music techniques. Electronic Music Techniques is required for all Music Technology majors. May be taken twice for credit on different topic. (Variable)

MUS THEO 2130. Theory III — 2 hrs.

Continuation of Theory II with emphasis on modulation within functional tonality, including secondary and altered dominant function, and altered predominant sonorities. Small forms and linear chromaticism are also introduced. Prerequisite(s): MUS THEO 1120 with grade of C or higher, or placement by exam. Corequisite(s): MUS THEO 2150. (Fall and Variable Springs)

MUS THEO 2140. Theory IV — 2 hrs.

Continuation and culmination of the Music Theory sequence with emphasis on fugue structures, chromatic harmony, non-functional tonal systems, and 20th-century/contemporary techniques, including set and 12-tone composition. Prerequisite(s): MUS THEO 2130 with grade of C or higher, or placement by exam. Corequisite(s): MUS THEO 2160. (Spring and Variable Falls)

MUS THEO 2150. Musicianship Lab III — 1 hr.

Continuation of Musicianship Lab II with further development of critical listening skills with emphasis on dictation of harmonic/melodic excerpts featuring chromatic functional harmony and modulation to closely and distantly related keys; sung verticalization of chromatic harmonic structures melodies in all modes and major and minor scales, and complex rhythmic syncopations and tuplets in simple and compound meters. Prerequisite(s): MUS THEO 1120; MUS THEO 1140. Corequisite(s): MUS THEO 2130. (Fall and Spring)

MUS THEO 2160. Musicianship Lab IV — 1 hr.

Continuation and culmination of the Musicianship Lab sequence. Further development of critical listening skills with emphasis on melodic and harmonic chromatic modulation and atonal melodic dictation. Asymmetric rhythmic structures are introduced. Further development of music reading skills with emphasis on modulatory, modal and atonal melodies, reading asymmetric rhythms, and recognition and performance of whole-tone, octatonic and pentatonic scales. Prerequisite(s): MUS THEO 2130; MUS THEO 2150. Corequisite(s): MUS THEO 2140. (Fall and Spring)

MUS THEO 2170. Aural Training III — 1 hr.

Continuation of Aural Training II with emphasis on dictation of harmonic/melodic modulation to closely related keys and short atonal intervallic melodies; Identification of all diatonic 7th chords. Prerequisite(s): MUS THEO 1120, MUS THEO 1160, and MUS THEO 1260 with grade of C or higher, or placement by exam. Corequisite(s): MUS THEO 2130; MUS THEO 2270. (Fall and Variable Springs)

MUS THEO 2180. Aural Training IV — 1 hr.

Continuation and culmination of the Aural Training sequence. Emphasis on melodic and harmonic chromatic modulation and atonal melodic dictation. Altered predominant sonorities and asymmetric rhythmic structures are introduced. Prerequisite(s): MUS THEO 2130, MUS THEO 2170, and MUS THEO 2270 with grade of C or higher, or placement by exam. Corequisite(s): MUS THEO 2140; MUS THEO 2280. (Spring and Variable Falls)

MUS THEO 2270. Sight-Singing III — 1 hr.

Continuation of Sight-Singing II. Emphasis on melodies with modulation to closely related keys, verticalization of harmonic structures through all diatonic 7th chords, alto and tenor clefs, all modes, major minor scales, atonal sequences and complex rhythmic structures in simple and compound meters. Prerequisite(s): MUS THEO 1120, MUS THEO 1160, and MUS THEO 1260 with grade of C or higher, or placement by exam. Corequisite(s): MUS THEO 2130; MUS THEO 2170. (Fall and Variable Springs)

Course Descriptions

MUS THEO 2280. Sight-Singing IV — 1 hr.

Continuation and culmination of the Sight-singing sequence. Emphasis on modulatory, modal and atonal melodies, and verticalization of tonal harmonic progression with modulation, including altered predominant sonorities. Reading asymmetric rhythms, melodies in tenor and alto clef, and recognition and performance of whole-tone, octatonic and pentatonic scales. Prerequisite(s): MUS THEO 2130, MUS THEO 2170, and MUS THEO 2270 with grade of C or higher, or placement by exam. Corequisite(s): MUS THEO 2140; MUS THEO 2180. (Spring and Variable Falls)

MUS THEO 3100. Analysis of Music — 2 hrs.

Study of forms and procedures prevalent in the works of major composers from 16th century to present. Prerequisite(s): MUS THEO 2130. (Variable)

MUS THEO 3200/5200. Topics in Music Theory and Analysis — 3 hrs.

Study of advanced music theory and analysis (specific topics vary) in relation to style and development of music. This course may be repeated for credit on a different topic. Prerequisite(s): for undergraduate students: MUS THEO 3100 or consent of instructor; junior standing. Prerequisite for graduate students: MUS THEO 6000; or consent of instructor. (Variable)

MUS THEO 3220/5220. Music and Technology — 4 hrs.

An introduction to the systems used to create, prepare, perform and distribute music. Because students entering this course come from a diverse set of backgrounds in music and digital media, the course will establish a common set of terms by focusing on basic acoustics, recording concepts and hardware, digital audio, MIDI, and DAW software. Lab activities will place an emphasis on the components and operation of the typical studio (hardware and software). Students will complete projects in areas such as audio recording, sampling, sound synthesis and basic electronic music composition that reinforce concepts. Prerequisite(s): junior standing. (Variable)

MUS THEO 3230/5230. Music Technology, Advanced — 4 hrs.

Further exploration of current applications in the music industry. Prerequisite(s): MUS THEO 3220/5220 with a grade of C or higher; junior standing. (Fall)

MUS THEO 3250/5250. Counterpoint Survey — 3 hrs.

A survey of polyphonic practice, including species counterpoint as well as 16th to 20th century approaches. Prerequisite(s): MUS THEO 2130; junior standing. (Variable)

MUS THEO 3260/5260. Orchestration — 3 hrs.

Transcribing or composing for orchestra, band, smaller instrumental ensembles, voice with orchestra, voice with band, chorus with band, or orchestra for various levels. Prerequisite(s): MUS THEO 2130; junior standing. (Variable)

MUS THEO 3270/5270. Jazz Arranging I — 2 hrs.

Basic skills for jazz composer/arranger, including instrument ranges, transposition, chord terminology, voicing and doubling principles, harmonization, chord substitution, form, and score organization. Emphasis on writing for jazz combo instrumentation up to five horns. Prerequisite(s): MUS TECH 1500; junior standing. (Fall)

MUS THEO 3280/5280. Jazz Arranging II — 2 hrs.

Continuation of MUS THEO 3270/5270. Emphasis on writing for full big band, including augmented instrumentation, contrapuntal and formal problems, score study, and analysis. Prerequisite(s): MUS THEO 3270/5270; junior standing. (Even Springs)

MUS THEO 3320/5320. Jazz Composition Class — 1 hr.

The composition of jazz improvisation vehicles in lead sheet form. Includes attention to various compositional devices and the analysis of selected jazz compositions. Prerequisite(s): MUS TECH 1500; junior standing. (Variable)

MUS THEO 3800/5800. Theory Survey for Graduates — 2 hrs.

Review of theoretical principles and methods of analysis. Required of all graduate students who do not demonstrate adequate proficiency as a result of the Graduate Theory Diagnostic Examination. Does not count toward minimum degree requirements. Prerequisite(s): junior standing. (Variable)

MUS THEO 4900. Senior Project, Music Technology.

0 hrs. Comprehensive project relevant to Music Technology, as approved by instructor. Credit/no credit only. Prerequisite(s): major in B.A. Music, Music Technology Specialization; senior standing. (Variable)

MUS THEO 6000. Foundations of Musical Analysis — 3 hrs.

Preparation for graduate level work in music theory and analysis; includes readings in music theory, introduction of advanced analytical techniques and systems, and concurrent online review of music theory fundamentals as determined by diagnostic result. (Spring)

MUS THEO 6299. Research.

Guided independent research leading to significant project, culminating paper or thesis. Prerequisite(s): consent of department. (Variable)

MUSIC: Music

Courses

MUSIC 1100. Soundscapes: Music in Culture — 3 hrs.

This course will examine representative works from selected musical traditions in their cultural, historical, and stylistic contexts. Students will cultivate listening skills and music analytical vocabulary to better identify, understand, and communicate about the musical experience as expression of meaning and purpose. (Fall, Spring, Summer)

MUSIC 1500. Modern Band and Creative Music Making — 3 hrs.

Students learn basic skills on modern band musical instruments, write their own music and work together in small groups to present musical creations. This course includes analysis and interpretation of contemporary and popular music styles to incorporate elements into music creations. (Variable)

MUSIC 6299. Research.

Guided independent research leading to significant project, research paper or thesis. Prerequisite(s): consent of department. (Variable)

NUR: Nursing

Courses

NUR 2500. Principles of Nursing Practice — 5 hrs.

This foundational course introduces the student to concepts and principles related to professional nursing practice. Topics include standards and foundations of nursing practice, history of nursing, the role of the nurse, diversity, equity, inclusion, patient-centered care, legal and ethical issues, quality and safety indicators, therapeutic communication, cultural and spiritual diversity, clinical judgment, informatics healthcare technologies, risk reduction, infection control, knowledge of systems, and holistic awareness. Students will learn how to provide basic care and comfort to individuals across the lifespan. Concepts from Biophysical, Psychosocial, Professional, and

Healthcare Systems will be integrated. 3 credit lecture, 2 credit lab. Prerequisite(s): admission to Nursing program; PH 1410; NUR 2575; NUR 3000; or consent of instructor. Corequisite(s): NUR 2510; BIOL 1033; BIOL 1103. (Fall and Spring)

NUR 2510. Pharmacotherapeutics in Nursing Practice — 3 hrs.

This course introduces nursing pharmacology that integrates the concepts of physiology, pathophysiology, chemistry, and nursing fundamentals to build a foundation for administering drug therapy to patients. Concepts from the domains of Biophysical, Psychosocial, Professional, and Healthcare Systems will be integrated throughout the course. Patient safety and clinical judgment will be emphasized. Prerequisite(s): admission to the Nursing program. (Fall, Spring, Summer)

NUR 2575. Research and Evidence-Based Practice — 3 hrs.

Prepares the student to analyze, critique, and apply nursing research in a practice environment, and to utilize selected nursing theories. Various models of research utilization will be presented and discussed. Prerequisite(s): admission to the Nursing program. (Fall, Spring, Summer)

NUR 3000. Health Assessment and Health Promotion Across the Lifespan — 4 hrs.

Concepts and principles underlying assessment of the health status of patients across the life span are presented, with emphasis placed on interviewing skills, health histories, and the physical and psychosocial findings in the well-person. Communication and assessment skills are developed. Students formulate health promotion recommendations using a Clinical Judgment/Nursing Process. Biophysical, Psychosocial, Professional, Healthcare Systems, and DEI concepts will be integrated throughout the course. 3 credit lecture, 1 credit lab. Prerequisite(s): admission to the Nursing program. Corequisite(s): PH 1410; NUR 2575. (Fall and Spring)

NUR 3009. Informatics and Health Care Technologies — 1 hr.

This course provides knowledge about the informatics roles and skills utilized in professional nursing practice. Emphasis is placed on the use of information processes and information technology to support patient care interventions in an interprofessional healthcare environment. Prerequisite(s): NUR 2500; NUR 2510. (Fall and Spring)

NUR 3010. Health Assessment and Principles of Nursing Practice — 6 hrs.

This foundational course introduces the student to health assessment and principles of professional nursing practice. Health assessment, health promotion, and foundational nursing skills are emphasized. Concepts from the domains of biophysical, psychosocial, professional, and healthcare systems will be integrated. Prerequisite(s): admission to the Nursing program. Corequisite(s): NUR 2575. (Fall, Spring, Summer)

NUR 3041. Psychiatric-Mental Health Nursing — 3 hrs.

This course gives students a basic understanding of psychiatric and mental health nursing principles. Emphasis is on clinical judgment, therapeutic nursing interventions, and effective communication and interpersonal skills as they relate to persons with psychiatric mental health conditions. 2 credit lecture, 1 credit CLN. Prerequisite(s): NUR 3010. (Fall, Spring, Summer)

NUR 3065. Health and Illness Concepts I: Chronic Care — 4 hrs.

This course focuses on the care of adult patients with chronic health conditions. Emphasis is placed on the care of the patients with alterations in selected body functions. Biophysical, Psychosocial, Professional, and Healthcare Systems will be integrated throughout the course. 3 credit lecture, 1 credit CLN. Prerequisite(s): NUR 2500;

NUR 2510; BIOL 1033; BIOL 1103. Corequisite(s): NUR 3009; NUR 3066; NUR 3067. (Fall and Spring)

NUR 3066. Clinical Reasoning Seminar I: Chronic Care — 1 hr.

This "Think Aloud" seminar is a group teaching method to assist students to develop clinical judgment and clinical reasoning in chronic disease cases. Prerequisite(s): NUR 2500; NUR 2510. Corequisite(s): NUR 3065; NUR 3067. (Fall and Spring)

NUR 3067. Nursing Pharmacology Seminar I — 1 hr.

This seminar focuses on medication administration and dosage calculations related to disease management in chronic care cases. .5 credit lecture, .5 credit lab. Prerequisite(s): NUR 2500; NUR 2510. Corequisite(s): NUR 3065; NUR 3066. (Fall and Spring)

NUR 3075. Health and Illness Concepts II: Acute Care — 4 hrs.

This course focuses on caring for adult patients with acute health and surgical conditions. Emphasis is placed on the care of the patients with alterations in selected body functions. Biophysical, Psychosocial, Professional, and Healthcare Systems will be integrated throughout the course. 3 credit lecture, 1 credit CLN. Prerequisite(s): NUR 3065; NUR 3066; NUR 3067. Corequisite(s): NUR 3076; NUR 3077. (Fall and Spring)

NUR 3076. Clinical Reasoning Seminar II: Acute Care — 1 hr.

This "Think Aloud" seminar is a group teaching method to assist students to develop clinical judgment and clinical reasoning in acute care cases. Prerequisite(s): NUR 3065; NUR 3066; NUR 3067. Corequisite(s): NUR 3075; NUR 3077. (Fall and Spring)

NUR 3077. Nursing Pharmacology Seminar II — 1 hr.

This seminar focuses on medication administration and dosage calculations related to disease management in acute care cases. .5 credit lecture, .5 credit lab. Prerequisite(s): NUR 3065; NUR 3066; NUR 3067. Corequisite(s): NUR 3075; NUR 3076. (Fall and Spring)

NUR 3119. Population Health — 3 hrs.

This course prepares the student to provide clinical prevention and population-based health care across the lifespan. Emphasis is on population-focused health promotion, policy, advocacy, infection control measures, disease and injury prevention care, climate change, health literacy, and social determinants of health to improve the nation's health. 2 credit lecture, 1 credit CLN. Prerequisite(s): NUR 3010. (Fall and Spring)

NUR 3120. Concepts of Geriatrics — 2 hrs.

This Course will focus on the care of the Older Adult. The student will analyze their own attitudes toward caring for older adults. Students will examine issues and trends related to the health and quality of life of older adults at the local, national, and global levels; and, they will contrast normal physiologic changes of aging with changes related to acute and chronic illness/injury. Prerequisite(s): NUR 2500; NUR 3000. (Fall and Spring)

NUR 3155. Health and Illness Concepts I: Acute and Chronic Care — 6 hrs.

This course focuses on the care of adult patients with chronic and acute health conditions. Emphasis is placed on the care of the patients with alterations in selected body functions. Concepts from the domains of Biophysical, Psychosocial, Professional, and Healthcare Systems will be integrated throughout the course. Prerequisite(s): NUR 2510. Corequisite(s): NUR 3156; NUR 3157. (Fall and Spring)

NUR 3156. Clinical Reasoning Seminar I: Acute and Chronic Care — 2 hrs.

This seminar is a group teaching method to assist students in developing clinical judgment and clinical reasoning in chronic and

Course Descriptions

acute disease cases. Prerequisite(s): NUR 2510. Corequisite(s): NUR 3155; NUR 3157. (Fall and Spring)

NUR 3157. Nursing Pharmacology Seminar I: Acute and Chronic Care — 2 hrs.

This seminar focuses on medication administration and dosage calculations related to disease management in chronic and acute care cases. Prerequisite(s): NUR 2510. Corequisite(s): NUR 3155; NUR 3156. (Fall and Spring)

NUR 4015. Nursing Care of Women and Children — 4 hrs.

This course builds upon previous, concurrent, and prerequisite courses. This course provides students the opportunity for clinical judgment and the acquisition and application of nursing theory, systems, informatics healthcare technologies, research, and practice to childbearing, child-rearing, and women's health issues. Growth and development, health promotion, and communication will be discussed. 3 credit lecture, 1 credit CLN. Prerequisite(s): NUR 3010. (Fall and Spring)

NUR 4031. Disaster Preparedness and Management — 2 hrs.

This course is a theoretical overview of trauma management at the disaster site and within an acute care setting. Concepts of incident command systems, terrorism, chemical, biological, radiological, nuclear, and explosive agents (CBRNE), hospital triage, and the use of personal protective equipment (PPE) will be addressed. 2 credit lecture. Prerequisite(s): NUR 2500; NUR 3000; NUR 3119. (Fall and Spring)

NUR 4075. Health and Illness Concepts II: Complex Care — 4 hrs.

This course focuses on enabling the student to develop proficiency in the management of patients admitted to critical care units within the healthcare sector. There is an emphasis on mechanical ventilation and advanced hemodynamic monitoring, and the care of patients with other life-threatening conditions. Biophysical, Psychosocial, Professional, and Healthcare Systems will be integrated throughout the course. 3 credit lecture, 1 credit CLN. Prerequisite(s): NUR 3155. Corequisite(s): NUR 4076; NUR 4077. (Fall and Spring)

NUR 4076. Clinical Reasoning Seminar II: Complex Care — 1 hr.

This "Think Aloud" seminar is a group teaching method to assist students in developing clinical judgment and clinical reasoning in complex care cases. Prerequisite(s): NUR 3156. Corequisite(s): NUR 4075; NUR 4077. (Fall and Spring)

NUR 4077. Nursing Pharmacology Seminar II: Complex Care — 1 hr.

This seminar focuses on medication administration and dosage calculations related to disease management in acute care cases. .5 credit lecture, .5 credit lab. Prerequisite(s): NUR 3157. Corequisite(s): NUR 4075; NUR 4076. (Fall and Spring)

NUR 4200. Nursing Roles, Leadership, and Systems-Based Practice — 3 hrs.

This course will focus on nursing history through the lens of DEI, roles of the professional nurse, leadership theories, delegation, current trends, ethics, payment models, health care delivery systems, professional responsibilities, educational options, professional organizations, certification and licensure issues. Prerequisite(s): NUR 4075. (Fall and Spring)

NUR 4275. Health and Illness Concepts III: Emergency and Trauma Care — 3 hrs.

This course is designed to give students the chance to gain an in-depth understanding of the nature of emergency nursing and the role of nurses in meeting the different needs of patients. It provides students

with knowledge that will help them provide efficient nursing care during emergency situations in a hospital setting. Concepts from the domains of Biophysical, Psychosocial, Professional, and Healthcare Systems will be integrated throughout the course. Critical judgment and communication are emphasized. 2 credit lecture, 1 credit CLN. Prerequisite(s): NUR 4075. (Fall and Spring)

NUR 4280. Person-Centered Care Residency and Capstone — 4 hrs.

This course provides an opportunity for students in the last semester of the nursing program to transition to clinical practice and prepare to assume the responsibilities of a Registered Nurse. 4 credit CLN. Prerequisite(s): NUR 4075. Corequisite(s): NUR 4275. (Fall and Spring)

NUR 4299. Professional Competencies for Entry into Practice — 2 hrs.

This course is designed for nursing majors and focuses on the achievement of professional success by preparing students for the RN licensure examination. Preparation for NCLEX-RN will be achieved through a process of enhancing NCLEX testing skills and individualized review of content utilizing both online and offline modalities. Prerequisite(s): NUR 4075. Corequisite(s): NUR 4275; NUR 4280. (Fall and Spring)

PH: Public Health

Courses

PH 1000. Public Health Practicum — 1-3 hrs.

Professional development, experiential learning, and practical applications in Public Health. May be repeated for a maximum of 3 hours. (Variable)

PH 1101. Introduction to Public Health — 3 hrs.

Introduction to the public health activities concerned with the protection and care of the community; survey of the major specialties and populations of interest in the public health field; considers the interaction of personal health and public health; and exploration of ethical issues related to public health. (Fall and Spring)

PH 1410. Basic Nutrition — 3 hrs.

This course introduces the basic concepts of nutrition. The content includes the functions of the major nutrients and food sources of each, the principles of healthy eating, dietary intake evaluation, energy balance, weight control, nutrition and fitness, food safety, and how food choices can enhance health, performance, and reduce the risk of chronic disease will also be covered. (Variable)

PH 1610. Exploring Careers in Public Health — 2 hrs.

Exploring Careers in Public Health is a class designed to give students a better understanding of the various career paths in the field of Public Health. The focus will be hands-on experiences obtained through field trips, site visits, tours, volunteering, shadowing, observation hours, informational and networking interviews, and guest speakers. (Variable)

PH 2100. Behavior Change for Health Promotion — 3 hrs.

This course addresses the ways in which health behaviors are linked to the prevention of chronic and infectious diseases. Includes a focus on theory-driven behavior change strategies. Prerequisite(s): PH 1101. (Spring)

PH 2130. Epidemiology of Human Diseases — 3 hrs.

Introduction to descriptive and analytic epidemiology to measure the presence and impacts of human diseases and behaviors on communities and populations. (Fall)

PH 2160. Medical Terminology, Short Course — 2 hrs.

Basic terminology and abbreviations used in the medical field; including terms related to procedures, diagnoses, instrumentation, and medical specialties. Students needing NCTRC certification must take PH 2180. PH 2160 cannot be taken after earning credit in PH 2180. (Variable)

PH 2180. Medical Terminology — 3 hrs.

Comprehensive coverage of terminology and abbreviations used in the medical field; including terms related to procedures, diagnoses, instrumentation, and medical specialties. Course includes pronunciation of terms and identification of spoken terms. (Variable)

PH 2420. Nutrition for Health Promotion — 3 hrs.

Introduction to the application of nutritional knowledge to promote healthy nutrition-related behavior for individuals and communities. Prerequisite(s): PH 1410. (Variable)

PH 2520. Maternal and Infant Health — 3 hrs.

Provides an overview of maternal and child health concepts, issues and trends. Topics covered include conception, pregnancy, childbirth, lactation and public health, prevention, and epidemiological issues in maternal and infant health. (Spring)

PH 2530. Introduction to Women's Health — 3 hrs.

Survey of contemporary issues in women's health providing an understanding of women's personal health status, needs, and resources; awareness of women's health issues worldwide and the political, cultural, economic, and psychosocial factors which affect the health of women. (Fall)

PH 2540. Selected Topics in Women's Health — 3 hrs.

In-depth development and exploration of selected themes and topics in women's health. Focus on health issues that disproportionately affect women and examination of a variety of health issues in that context. (Variable)

PH 2620. Stress and Coping — 3 hrs.

Introduction to stress, the relationship between stress and disease, and strategies for coping with stress. (Variable)

PH 2630. Aging and Health — 3 hrs.

Introduction to aging and health concerns of older individuals, and to broader issues of aging, health, and society. Study of aging demographics, biomedical aspects of aging, and selected issues of health and aging. (Variable)

PH 3140/5140. Planning and Evaluating Public Health Programs — 3 hrs.

Investigation of the social, epidemiological, behavioral, educational, and administrative factors related to planning health programs and the procedures and methods for health program evaluation. Prerequisite(s): PH 1101; junior standing. (Spring)

PH 3150/5150. Implementing Public Health Programs — 3 hrs.

Methods, techniques, and resources used in the implementation of public health programs. Requires field-based work. Prerequisite(s): PH 1101; junior standing. (Fall)

PH 3160. Community and Public Health — 3 hrs.

Examination of the major public health issues facing the U.S. and world population. Investigation of major public health

initiatives, public policy, and ethical issues related to public health.

Prerequisite(s): junior standing. (Same as CAP 3160) (Variable)

PH 3170. Public Health Career Readiness Seminar — 3 hrs.

Professional development oriented course which focuses on topics related to leadership, ethics, and professionalism in public health and health education careers, including codes of ethics, professional development, and skills needed for job-seeking and career readiness. Course requires resume development, mock interviews, and completion of professional certifications. This course is a prerequisite to PH 4180 Internship. Prerequisite(s): consent of instructor. (Fall and Spring)

PH 3240. Secondary School Health Education Methods — 2 hrs.

Examination of role of the teacher in planning, delivering, and evaluating middle and high school health education; introduction of instructional methods and materials and their use demonstrated and practiced. Prerequisite(s) or corequisite(s): EDPSYCH 3148. (Variable)

PH 3250. Community and Public Health for School Health Educators — 3 hrs.

Methods of delivering instruction for Community and Public Health in the secondary classroom. Designed for in-service teachers seeking a health education endorsement. (Variable)

PH 3280. Sexuality Education for School Health Educators — 3 hrs.

Methods of delivering instruction for Sexuality Education in the secondary classroom. Designed for in-service teachers seeking a health education endorsement. (Variable)

PH 3290. Consumer Health for School Health Educators — 2 hrs.

Methods of delivering instruction for Consumer Health in the secondary classroom. Designed for in-service teachers seeking a health education endorsement. (Variable)

PH 3310/5310. Health Policy and Advocacy — 3 hrs.

Introduction to the concepts of health policy and advocacy that impact variable health outcomes and health behaviors in the United States. Includes an overview of historical and current issues as well as discussion of how policy and advocacy can improve community wellbeing. Prerequisite(s): junior standing. (Variable)

PH 3320/5320. Global Service Mission — 3 hrs.

The Global Service Mission is a hybrid practicum that provides guided opportunities for students to conduct a short-term volunteer service project in their local community, around the United States, or internationally with underserved populations for academic credit. Offered credit/no credit basis only. Prerequisite(s): junior standing. (Variable)

PH 3330. Health of Vulnerable Populations — 3 hrs.

Exploration of public health issues and problems faced by members of minority vulnerable populations. (Variable)

PH 3340. International Health — 3 hrs.

Exploration of widely-different disease patterns found between developed and developing countries, and investigation of the complex factors that contribute to poor community health status. Discussion of wellness strategies for populations in developing countries, as well as for minorities, immigrants, low income persons, and other underserved groups within the United States. (Variable)

PH 3640. Worksite Health Promotion — 3 hrs.

Models of delivery of health promotion, disease prevention, and occupational health/safety programs to employee populations. (Variable)

Course Descriptions

PH 3650. Complementary, Alternative, and Integrative Health — 3 hrs.

Introduction to the concepts, theoretical basis, evidence-based analysis, and challenges and issues in integrative health and complementary and alternative medical practices (CAM). Prerequisite(s): junior standing. (Variable)

PH 3660/5660. Public Health Theory — 3 hrs.

Selected learning and behavior change theories and ethical principles that serve as the foundation for effective public health, health promotion, and health education practice; emphasis on the practical application of these theories and principles in public health program delivery. Prerequisite(s): junior standing. (Variable)

PH 3670. Health Care and the Consumer — 3 hrs.

Selection and use of health care products and services, alternative health care, health care insurance systems, consumer protection. (Variable)

PH 3686. Readings — 1-4 hrs.

Credit based on student's proposal; to be determined at time of registration. Written contract will determine appropriate work load under credit guidelines. Prerequisite(s): consent of instructor. (Fall, Spring, Summer)

PH 3689. Seminar — 3 hrs.

Focus on issues in community health education and the transition from student role to health educator or health promotion specialist role. (Variable)

PH 3710. Environmental Health Science — 3 hrs.

Comprehensive survey of the interaction between human health and the quality and state of the natural environment. Prerequisite(s): junior standing. (Fall)

PH 3720. Environmental and Occupational Health Regulations — 3 hrs.

Overview of environmental and occupational safety laws applied to the practice of environmental science. Emphasis on application of the legislation with a focus on regulations. Includes major environmental laws such as the National Environmental Policy Act, Clean Air Act, Clean Water Act, and the Occupational Safety and Health Act. Prerequisite(s): junior standing. (Variable)

PH 3730. Toxins and Health — 3 hrs.

This course introduces the basic principles of human toxicology for the environmental health sciences, including exposure assessment concepts, biomolecular and human biosystems impacts of toxicants. Detailed case studies of key toxins are used to examine the full absorption, distribution, metabolism and elimination (ADME) cycle including discussions of limiting exposures and cutting edge topics in toxicology. Prerequisite(s): junior standing. (Variable)

PH 4170. Internship Portfolio — 3 hrs.

Internship Portfolio compliments the internship requirement preparing students for future employment in public health organizations. Focus on effective delivery of public health messages through a variety of communication strategies. Written report and oral presentation required after the completion of internship. Prerequisite(s): Senior standing; consent of Internship Coordinator. Corequisite(s): PH 4180. (Spring and Summer)

PH 4180. Internship — 1-12 hrs.

1 - 12 hrs. Experience in area of student's career objectives. Offered on credit/no credit basis only. Prerequisite(s): PH 3170 or HRCS 4000; senior standing; consent of Internship Coordinator. CPR, First Aid,

OSHA and Mandatory Reporting certificates required. Corequisite(s): PH 4170. (Spring and Summer)

PH 4663/5663. Human Diseases — 3 hrs.

Systemic approach to study of human diseases emphasizing common physical disorders impacting humans while contrasting normal physiology with the pathophysiology of the conditions. Current trends in diagnosis and treatment, along with preventive and wellness measures, are stressed. Prerequisite(s): junior standing. (Variable)

PH 6245. Internship in Health Education — 2-6 hrs.

Health program experience with agencies other than the college or university. May be repeated once for credit. Prerequisite(s): consent of Health Promotion and Education Graduate Coordinator. (Fall, Spring, Summer)

PH 6285. Readings — 1-4 hrs.

May be repeated for maximum of 6 hours. (Fall, Spring, Summer)

PH 6289. Seminar — 1 hr.

May be repeated for maximum of 6 hours. (Variable)

PH 6297. Practicum — 2-3 hrs.

May be repeated for credit. (Fall, Spring, Summer)

PH 6390. Philosophy and Ethics of Public Health and Health Promotion — 3 hrs.

Analysis of philosophical foundations and ethical principles related to public health, health promotion, and health education practice. (Variable)

PHIL: Philosophy

Courses

PHIL 1030. Elementary Logic — 3 hrs.

Critical thinking, using both formal and informal methods, including proof techniques and recognizing logical fallacies. Enhances reading, writing, and thinking in any area of study, and in preparing for grad-school exams (e.g., LSAT, GMAT, and GRE). (Fall and Spring)

PHIL 1040. Justice and the Good Life: Philosophical Perspectives — 3 hrs.

What makes a society just or unjust? What does it mean to lead a good life? The course will provide philosophical perspectives on these questions, including investigations of the principles and virtues that should guide how we interact with others in our communities and lead meaningful lives. (Fall and Spring)

PHIL 1050. The Art of Critical Thinking and Writing — 3 hrs.

The course aims to develop fundamental skills of critical thinking and writing academic essays at the college level and enable students to make the most of their college education. As part of their coursework, students will use the skills they develop in the course to think critically and write with skill, clarity, and rigor on a range of issues that are meaningful to them and relevant to their lives as college students and as citizens. Class sessions will combine lecture and discussion, including small group work. (Fall and Spring)

PHIL 1080. World Philosophies — 3 hrs.

This course introduces multiple philosophical traditions around the globe. One focus is on finding common and diverging themes demonstrating shared human interests across differences. Another is the demonstration of unique philosophical ideas and developments of societies and cultures often given little attention in traditional philosophy courses. (Fall and Spring)

PHIL 1540. Ethics in Business — 3 hrs.

Application of ethical principles and analytic methods to contemporary issues in business. Topics include moral responsibility of corporations and their regulation; economic policy, business practices, and social justice; rights and obligations of employers and employees; meaningful work, motivation, and the worker; affirmative action and reverse discrimination; environment and natural limits of capitalism. (Same as RELS 1540) (Variable)

PHIL 1560. Science, Technology, and Ethics (STE) — 3 hrs.

The course is an interdisciplinary survey of ethical issues raised by recent developments in science and technology. Sample topics include, but are not limited to, artificial intelligence, genetic engineering, big data, privacy, energy, medicine, and science itself. (Fall and Spring)

PHIL 1580. Ethics for Professional Life — 3 hrs.

This course examines the similarities and differences between personal and professional ethics and how different professions define their ethical responsibilities to colleagues, employees, and the public. (Fall and Spring)

PHIL 2070. Ethics in the Age of AI — 3 hrs.

Both professionally and personally, our lives are increasingly intertwined with artificial intelligence. In this class, normative ethical concepts and value traditions will be brought to bear on the emergence of generative AI. Students will be given the opportunity to reflect on the ties between emerging technology and their own values. Topics may include but are not limited to: AI in research and intellectual labor, AI in the learning process, AI and the workforce, AI and the future of humanity, AI's potential impact on human skill sets and social aptitudes, AI and the environment. [Same as RELS 2070] (Variable)

PHIL 2140. Philosophy of Religion — 3 hrs.

Examination of philosophical discussions on the nature and function of religion and religious language; special attention to how philosophical frameworks and methods shape understanding of religion and talk about God and human fulfillment. (Same as RELS 2140) (Variable)

PHIL 2210. Dawn of Western Thought: Ancient Philosophy — 3 hrs.

History of the ancient Greek philosophy with an emphasis on the Pre-Socratics, Plato, and Aristotle. (Odd Falls)

PHIL 2220. Faith and Reason: Philosophy in the Middle Ages — 3 hrs.

Traces the historical development of philosophical thought on the interrelation of religious faith and reason, from late Roman times through the Middle Ages, in Jewish, Christian, and Islamic philosophical traditions. (Same as RELS 2220) (Even Springs)

PHIL 2230. The Age of Reason: Philosophy in the Renaissance and Enlightenment — 3 hrs.

History of philosophy from the Renaissance through Hume, with emphasis on continental rationalism and British empiricism. (Even Falls)

PHIL 2240. The Limits of Reason: Modern Philosophy — 3 hrs.

History of the philosophical tradition from Kant to Marx. (Odd Springs)

PHIL 2500. Ethics — 3 hrs.

Study of the major schools of ethical theory through reading major thinkers and their contemporary commentators. Examination of selected theoretical and practical problems in contemporary ethics. (Variable)

PHIL 2550. Environmental Ethics — 3 hrs.

Introduction to and application of ethical theory to environmental issues, including responsibility for plants and animals, pollution, natural resources, and population growth. (Same as RELS 2550) (Variable)

PHIL 2570. Good Sex: The Ethics of Human Sexuality — 3 hrs.

This course introduces students to a range of ethical perspectives (religious and non-) on what constitutes good sex, morally speaking. It then brings these perspectives to bear on a number of issues in the realm of sexual ethics including: homosexuality, casual sex, sex for sale, and abortion. [Same as RELS 2570] (Even Springs)

PHIL 3080/5080. Individual Readings in Philosophy — 1-3 hrs.

Individually arranged readings and reports drawn from history of philosophy or contemporary philosophical problems. May be repeated for maximum of 6 hours. Prerequisite(s): junior standing; consent of department head. (Fall and Spring)

PHIL 3110. Perspectives on Death and Dying — 3 hrs.

Multidisciplinary study of death, dying, and bereavement across cultures, religious and ethnic groups, and historical periods, with attention to ritual and memoir, ethical dilemmas at the end of life, and psychology of mourning. (Same as CAP 3194 and RELS 3110) (Fall and Spring)

PHIL 3310. Consciousness and Mind: Philosophical Perspectives — 3 hrs.

No aspect of mind is more familiar and yet more mysterious than consciousness, our conscious experience of ourselves and the world around us. This course examines fundamental questions about consciousness and mind: What does it mean to be conscious? How can physical processes in the brain give rise to subjective conscious experiences? Can artificial intelligence evolve consciousness? What does self-consciousness imply about free will, personal identity, and immortality? More fundamentally, what is the place of consciousness in the universe? Does consciousness appear only when matter achieves a brainlike level of organizational complexity as modern science assumes, or as many religious and contemplative traditions have contended, some form of consciousness is present in all of reality? (Odd Springs)

PHIL 3320. Political Philosophy — 3 hrs.

Critical investigation of contexts of engagement and responsibility of persons as members of social institutions and as participants in public discourse on policy and law. Prerequisite(s): junior standing or consent of instructor. (Even Springs)

PHIL 3330. Death, Sex and the Body: Phenomenology and Foucault — 3 hrs.

Examination of phenomenology, the description of basic structures of human experience. Focus on Martin Heidegger and others on conscious, practical, social, mortal, and embodied life; then Michel Foucault on forms of power in social science and modern culture. (Odd Falls)

PHIL 3350. How We Know: Philosophical Perspectives — 3 hrs.

This introduction to epistemology examines fundamental questions about human knowledge: What distinguishes knowledge from mere belief? What can be known with certainty? How can we know if we have knowledge? How can we use our reason, our senses, the testimony of others, and other resources to acquire knowledge? How do social relationships and interactions affect the knowledge of individuals and groups? How can we evaluate the claims of knowledge by socially accepted authorities? (Even Falls)

Course Descriptions

PHIL 3360. Character, Wisdom, and Mind: Philosophical Perspectives — 3 hrs.

This course will provide students with opportunities to accomplish four objectives: 1. Gain a rigorous understanding of virtues and vices, and in particular intellectual virtues (such as intellectual humility, intellectual courage, intellectual autonomy, open-mindedness, curiosity, and wisdom) and intellectual vices (such as closed-mindedness, intellectual cowardice, gullibility, wishful thinking, conspiracy mentality, and epistemic injustice). 2. Investigate the relevance of intellectual vices and virtues to specific domains such as education, science, business, leadership, politics and social activism, religious belief and practice, interpersonal relationships, and mental health and well-being. 3. Foster self-improvement to character by cultivating intellectual virtues and mitigating intellectual vices. 4. Develop skills essential to critical thinking and effective communication. (Fall)

PHIL 3370. Philosophy of Law — 3 hrs.

This course provides an introduction to philosophy of law that is both thematically and historically oriented. Our chief concern will be to understand the nature of law and its implications for morality and our social and political existence together. The first part of the seminar focuses on the nature of law: We will begin by considering the essence and nature of law in trying to find answers to questions such as "What is law?", "Can anything be law?", "Do laws have moral content?". The second part inquires into the relationship between law and morality, drawing on the normative standing of law: We will try to answer questions such as "Is there an obligation to obey the law?" and "Is civil disobedience justified?". In the third part, we will turn to the specific context of interpreting the U.S. Constitution, and attempt to understand how to do legal analyses of actual court decisions pertaining to significant issues such as reproductive freedom, equality, and freedom of speech. Prerequisite(s): junior standing or consent of instructor. (Variable)

PHIL 3510. Bio-Medical Ethics — 3 hrs.

Application of principles and analytic methods of ethical theory to contemporary issues in medical practice and research. Topics include fundamental concepts of health and disease, life and death; rights and obligations of medical practitioners and their patients; informed consent and confidentiality; abortion and euthanasia; reproductive and transplantation technologies; and health policy and the provision and rationing of health care. (Same as CAP 3173 and RELS 3510) (Fall and Spring)

PHIL 3610. Nietzsche, Nihilism, and Technology — 3 hrs.

Examination of Nietzsche's genealogy, diagnosis, and prognosis of contemporary nihilism, the experience of one's values as empty or meaningless. Examination of Heidegger's later critique of Nietzsche's views as expressions of problematic aspects of the modern technological age. (Odd Springs)

PHIL 3620. Philosophy of Language: Wittgenstein — 3 hrs.

Examination of Wittgenstein, sometimes called "the two most important philosophers" of the 20th century. Topics include language and formal logic, language as social practice, and ways in which classic philosophical problems arise from a misunderstanding of how we use common words. (Even Springs)

PHIL 3974/5974. Ethics, Responsible AI, and Business — 3 hrs.

Application of ethical principles and analytic methods to managerial decision-making and contemporary issues in business, including examination of the role and the impact of AI on ethically managing employees and business processes/practices. Apply AI-Ethics in practical scenarios at a workplace. Specific topics will vary in

accordance with current events. Prerequisite(s): MGMT 3100 or 3 hours in Philosophy (PHIL XXXX) or 3 hours in Religious Studies (RELS XXXX); junior standing. [Same as MGMT 3974/5974 and RELS 3974/5974] (Fall and Spring)

PHIL 4186/5186. Studies in Philosophy — 3 hrs.

Study of a philosophical thinker or a problem listed in Schedule of Classes. (Fall and Spring)

PHIL 4490. Professional Development Seminar — 3 hrs.

Through thoughtful reflection and critical discernment, students synthesize their work in the major, clarifying what they have done and linking their achievements with life goals, while they also explore how deep learning outcomes in the major offer preparation for a career or graduate/professional school. Prerequisite(s): junior standing or consent of instructor. (Even Falls)

PHYSICS: Physics

Courses

PHYSICS 1000. Physics in Everyday Life — 3 hrs.

Basic laws and concepts of physics introduced and demonstrated through operation of everyday devices and systems. Emphasis on understanding physical principles behind working of modern technologies and interplay between science and technology. (Fall and Spring)

PHYSICS 1010. Physics in Everyday Life Laboratory — 1 hr.

Laboratory activities involving energy, temperature and heat, waves and sound, electricity and magnetism, light and color; and the atomic and nuclear structure of matter. Emphasis on observation, interpretation, and conceptual understanding of physical phenomena. Lab, 2 periods. Prerequisite(s) or corequisite(s): PHYSICS 1000 or consent of department head. (Fall and Spring)

PHYSICS 1100. First-Year Projects in Physics — 1 hr.

An introduction to the basic elements of physics research and applications. Students will complete a series of projects designed to integrate theory, measurement and computation to create instruments and devices that interact with the physical world. In doing so, students will learn how to create and control electro-mechanical devices and gain experience in techniques used in both industry and research. Prerequisite(s) or corequisite(s): PHYSICS 1701, or the consent of the department head. (Fall)

PHYSICS 1511. General Physics I — 4 hrs.

Algebra-based introductory course covering Newtonian mechanics, gravitation, and thermal physics. Emphasis on conceptual understanding of physical principles through group investigations and lab activities. Discussion/lab, 5 periods. Prerequisite(s): satisfactory ALEKS score or equivalent. (Fall and Spring)

PHYSICS 1512. General Physics II — 4 hrs.

Algebra-based introductory course covering electricity, magnetism, optics, and modern physics. Emphasis on conceptual understanding of physical principles through group investigations and lab activities. Discussion/lab, 5 periods. Prerequisite(s): PHYSICS 1511 or PHYSICS 1701. (Fall and Spring)

PHYSICS 1701. Physics I for Science and Engineering — 4 hrs.

Calculus-based introductory course covering Newtonian mechanics, gravitation, and thermal physics. Lab activities. Discussion/lab, 5 periods. Prerequisite(s) or corequisite(s): satisfactory mathematical preparation for calculus. (Fall)

PHYSICS 1702. Physics II for Science and Engineering — 4 hrs.

Calculus-based introductory course covering electricity, magnetism, and optics. Lab activities. Discussion/lab, 5 periods. Prerequisite(s): PHYSICS 1511 (minimum grade of B) or PHYSICS 1701. Prerequisite(s) or corequisite(s): MATH 1421. (Spring)

PHYSICS 2300. Physics III: Theory and Simulation — 3 hrs.

Calculus-based course covering the more advanced topics in introductory physics. Emphasis on developing analytical and computational skills needed to study physics at a more advanced level. Topics include Newtonian mechanics and applications, Maxwell's equations and applications. Prerequisite(s): PHYSICS 1702. (Fall)

PHYSICS 2700. Mathematical Methods of Physics & Engineering — 3 hrs.

Introduction to the mathematical methods used in upper-level Physics and Engineering courses, illustrated with applications from different areas of physics and engineering. Prerequisite(s): MATH 1420; MATH 1421; PHYSICS 1701; PHYSICS 1702. Prerequisite(s) or corequisite(s): MATH 2422. (Spring)

PHYSICS 3000. Undergraduate Research in Physics — 1-6 hrs.

Research activities under direct supervision of sponsoring staff members or at a national laboratory. Should normally be taken after the first year of the major. Successful completion of the research experience requires both a written and oral report. Prerequisite(s): minimum overall 2.50 GPA; consent of department. (Fall and Spring)

PHYSICS 3030. Robotics and Sensors — 3 hrs.

Students will build their own autonomous robot. Students will learn and apply basic electronics, programming, physics concepts to develop their robot and create an interactive presentation on their creation. These robotics concepts will also be applied to important issues for industry and sustainability in the areas of automation, energy, and transportation. Lecture 1 period, Lab, 3 periods. Prerequisite(s): PHYSICS 1511 and PHYSICS 1512, or PHYSICS 1701 and PHYSICS 1702, or TECH 1037 or CS 1510. Other interested students with some experience in coding and/or electronics experience are encouraged to contact the instructor. (Variable)

PHYSICS 3100. Introduction to Quantum Computing — 3 hrs.

Basic concepts underlying quantum information science and quantum computing are introduced and discussed. Topics include quantum state vector notation, quantum states and operations, qubits, entanglement, quantum gates and circuits, and quantum algorithms. Implementations of quantum computers will also be briefly discussed. Prerequisite(s) or corequisite(s): PHYSICS 1511 or PHYSICS 1701 or CS 1510 or ECON 2090 or STAT 1772 or departmental consent. (Fall)

PHYSICS 3179. Cooperative Education.

Applied physics internship under PHYSICS 3179 should be taken during the junior or senior year. If unable to do so, the internship may be done under PHYSICS 3500 with consent of department. Successful completion of either PHYSICS 3179 or PHYSICS 3500 requires both a written and an oral report. Offered on credit/no credit basis only. (Fall and Spring)

PHYSICS 3500. Internship in Applied Physics — 1-3 hrs.

Departmentally approved work in applied physics (at an industrial, medical, or government laboratory) followed by oral and written reports given on completed work. Offered on credit/no credit basis only. Prerequisite(s): minimum overall 2.50 GPA; consent of department. (Fall and Spring)

PHYSICS 3700. Physics Seminar — 1 hr.

Seminar course covering aspects important for life after graduation. Participation in physics colloquia; oral report on research topic or

internship, drafting resume/CV, interview, perform job and graduate school search. Prerequisite(s): PHYSICS 4100/5100. (Fall)

PHYSICS 4050/5050. Optical Science — 3 hrs.

An introduction to optics and applied optics. Topics include: geometric optics, wave optics, quantum optics, and introductions to lasers and optical spectroscopy. Discussion, 2 periods; lab, 2 periods. Prerequisite(s): PHYSICS 1512 or PHYSICS 1702; junior standing or consent of department head. (Even Falls)

PHYSICS 4060/5060. Mechanics for Physics Education — 3 hrs.

Experiences in motion, force, energy, and momentum using physics education curricular resources with emphasis on practices aligned with the Next Generation Science Standards (NGSS). The course is designed for current and future middle-level and secondary science teachers. Prerequisite(s): PHYSICS 1511 or PHYSICS 1701 or permission of the instructor; junior standing. (Variable)

PHYSICS 4070/5070. Electricity and Magnetism for Physics Education — 3 hrs.

Experiences in waves, electricity, magnetism, and light using physics education curricular resources with emphasis on practices aligned with the Next Generation Science Standards (NGSS). The course is designed for current and future middle-level and secondary science teachers. Prerequisite(s): PHYSICS 1512 or PHYSICS 1702 or permission of the instructor; junior standing. (Variable)

PHYSICS 4080/5080. Resources for Teaching Physics — 2 hrs.

A physics course that focuses on topics recommended for high school physics programs, with an emphasis on various physics education resources in the context of science education initiatives. This course is designed for both current science teachers and science education undergraduates. Prerequisite(s): PHYSICS 1511 or PHYSICS 1701; PHYSICS 1512 or PHYSICS 1702; junior standing. (Spring)

PHYSICS 4100/5100. Modern Physics — 4 hrs.

Special relativity; quantum phenomena; wave-particle duality; atomic and nuclear structure; properties of solids, interaction of radiation with matter; and elementary particles. Prerequisite(s): PHYSICS 1702; junior standing. (Spring)

PHYSICS 4110/5110. Modern Physics Laboratory — 2 hrs.

Experiments on interactions of photons and electrons; mass and charge of electrons; atomic spectroscopy; nuclear detection and spectroscopy; spin resonance; and properties of solids. Requires detailed lab reports, including error analysis. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): PHYSICS 4100/5100. (Spring)

PHYSICS 4160/5160. Data Visualization, Modeling and Simulation — 3 hrs.

This course focuses on the theory and practice of designing effective visualizations of various data sets, processing images, modeling and finding patterns in these data sets. The course covers visualization toolkits, scientific visualization, medical visualization, and information visualization. Topics include image processing techniques and the associated toolboxes, methods to visualize and analyze the evolution of data sets including images, and finding predictive models and simulation methods that can generate and explain data. Prerequisite(s): CS 1510; junior standing. (Spring)

PHYSICS 4200/5200. Nanoscience — 3 hrs.

Study of nanoscale materials and processes, with emphasis on the preparation and characterization of materials with nanometer scale dimensions; investigation of how nanoscale dimensions produce unique chemical and physical properties; nanoscale microscopy and spectroscopic methods of investigation. Prerequisite(s):

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CHEM 1110 and CHEM 1120 (or CHEM 1130); PHYSICS 1511 or PHYSICS 1701; PHYSICS 1512 or PHYSICS 1702; junior standing. [Same as CHEM 4200/5200] (Fall)

PHYSICS 4210/5210. Nanotechnology — 3 hrs.

Study of nanoscale materials and processes, with emphasis on the current and potential future applications of materials with distinctive properties due to their nanometer scale dimensions; nanoporous materials; discussion of the broader implications of nanotechnology in areas such as government policy, occupational safety and medical technology. Prerequisite(s): CHEM 1110 and CHEM 1120 (or CHEM 1130); PHYSICS 1511 or PHYSICS 1701; PHYSICS 1512 or PHYSICS 1702; junior standing. [Same as CHEM 4210/5210] (Odd Springs)

PHYSICS 4290/5290. Project Lead The Way: Digital Electronics — 3 hrs.

Introduction to the theory and applications of analog and digital electronics utilizing the Digital Electronics curriculum from the nationally certified Project Lead The Way (PLTW) curriculum. Especially intended for science and technology K-12 education majors to become certified PLTW teachers of this course. Prerequisite(s): PHYSICS 1511 or PHYSICS 1400 or PHYSICS 1701; junior standing. (Variable)

PHYSICS 4300/5300. Introduction to Electronics — 4 hrs.

Introduction to DC and AC circuits; electrical measurements, circuit theory and circuit simulation; analog and digital circuits; energy generation and efficiency. Discussion, 2 periods; lab, 4 periods. Prerequisite(s): PHYSICS 1512 or PHYSICS 1702; MATH 1421; junior standing. (Fall)

PHYSICS 4310/5310. Physical Computing — 4 hrs.

Introduction to computer interfacing, instrument control, and data acquisition. Utilization of industry standard software and microcontrollers to acquire and process data, process signals, and perform feedback control of physical systems. Prerequisite(s): PHYSICS 1511 and PHYSICS 1512, or PHYSICS 1701 and PHYSICS 1702; junior standing. (Variable)

PHYSICS 4450/5450. Laboratory Projects — 1-3 hrs.

Experimental activities to meet individual needs and interests not normally included in other courses. Maximum of 3 hours may be applied to a physics major or minor. Prerequisite(s): junior standing; consent of department. (Fall and Spring)

PHYSICS 4500/5500. Biological Physics — 3 hrs.

This course employs a quantitative approach to studying living systems. Several concepts used in biological systems will be studied, including thermodynamics, electrodynamics, kinetics, and statistical mechanics. The mathematical and computational techniques required to tackle these problems quantitatively will be developed as needed. Students will also study and present from real research papers to integrate what they learn in class with how these ideas are implemented in the real world. Prerequisite(s): PHYSICS 1511 or PHYSICS 1701; PHYSICS 1512 or PHYSICS 1702; junior standing. (Even Falls)

PHYSICS 4600/5600. Classical Mechanics — 4 hrs.

Vectors and kinematics; force and motion; work and energy; Lagrange's equations; gravity; oscillations; rigid-body motion; and accelerated reference frames. Prerequisite(s): MATH 1420; MATH 1421; PHYSICS 1701; PHYSICS 1702; PHYSICS 2300; PHYSICS 2700; junior standing. Prerequisite(s) or corequisite(s): MATH 2422. (Fall)

PHYSICS 4650/5650. The Science of Energy Sources — 3 hrs.

Basic physical principles underlying a variety of current global energy sources. The science and technology of energy generation from fossil fuels, the sun, wind, and atomic nuclei. Energy storage mechanisms will also be discussed. Prerequisite(s): PHYSICS 1511 or PHYSICS 1701; PHYSICS 1512 or PHYSICS 1702; or departmental consent. (Odd Falls)

PHYSICS 4700/5700. Electrodynamics — 4 hrs.

General principles of Classical Electrodynamics: Electrostatics, Electric Current, Electric and Magnetic Fields in Vacuum, Electromagnetic Induction, Maxwell's equations and electromagnetic waves, Electric and Magnetic Fields in Matter, Types of Materials (Dielectrics, Conductors, Magnetic Materials). Phenomena will be explored through theoretical investigations supplemented with computational simulations and experiments. Prerequisite(s): MATH 2422; PHYSICS 2300; PHYSICS 2700; junior standing. (Odd Falls)

PHYSICS 4750/5750. Physics of Modern Materials — 3 hrs.

Structural, thermal, and electronic properties of materials; applications to modern devices. Discussion, 2 periods; lab, 2 periods. Prerequisite(s): PHYSICS 1701; PHYSICS 1702; MATH 2422; junior standing. (Even Falls)

PHYSICS 4760/5760. Computational Materials Science — 3 hrs.

The goal of this course is to introduce students to the basic methods used in computational modeling of materials, such as density functional theory and molecular dynamics, as well as to select topics of materials science. Students will perform computer simulations of various materials properties using software packages such as VASP, Quantum Espresso and LAMMPS. Prerequisite(s): MATH 1421; PHYSICS 1702; PHYSICS 4900/5900 or CHEM 4420/5420; junior standing. (Spring)

PHYSICS 4800/5800. Quantum Mechanics — 4 hrs.

Solution of Schrodinger equation for several systems: spin and angular momentum; identical particles; perturbation theory; WKB approximation; and scattering. Prerequisite(s): PHYSICS 2700; PHYSICS 4100/5100; PHYSICS 4600/5600; junior standing. (Even Springs)

PHYSICS 4860/5860. Computational Physics — 3 hrs.

Computer simulations and numerical solutions of behaviors of important physical systems, emphasizing those that are very difficult or impossible to analyze by traditional means, for example, nonlinear oscillators or phase transitions in the Ising Model. Discussion, 2 periods; lab, 2 periods. Prerequisite(s): PHYSICS 2300; PHYSICS 2700; PHYSICS 4100/5100; PHYSICS 4600/5600; junior standing. (Spring)

PHYSICS 4900/5900. Thermodynamics and Statistical Mechanics — 4 hrs.

General principles of classical thermodynamics and applications (e.g., to first-order phase transitions); general principles of statistical mechanics and applications (e.g., to the classical ideal gas). Prerequisite(s): PHYSICS 1701; PHYSICS 1702; PHYSICS 2700 or MATH 3425/5425; junior standing. (Spring)

PHYSICS 4950/5950. Readings in Physics — 1-3 hrs.

Readings/problems in areas of physics (or related interdisciplinary areas) not normally covered in other courses. Maximum of 3 hours may be applied to a physics major or minor. Prerequisite(s): junior standing; consent of department. (Variable)

PHYSICS 4990. Senior Thesis — 1 hr.

Senior Thesis. Open only to students pursuing the B.S. Physics Honors Research Emphasis or the B.A. Physics-Teaching Honors Research Emphasis. Prerequisite(s): consent of the department head. (Fall, Spring, Summer)

PHYSICS 6100. Modeling and Simulation of Physical Systems — 3 hrs.

Computer simulation and visualization of physical systems. Students will code, debug, and run basic simulations in C++ as well as more sophisticated simulations with other tools, including parallel computing. Prerequisite(s): CS 1160 and PHYSICS 4860/5860, or MATH 3440/5440 and CS 1160, or consent of instructor. (Variable)

PHYSICS 6299. Research.

Prerequisite(s): consent of department. (Variable)

PHYSICS 6300. Computer Interfacing and Signal Processing — 3 hrs.

Introduction to computer interfacing, instrument control, and data acquisition. Discussion of digital signal processing and utilization of industry-standard software platforms in laboratory activities. Prerequisite(s): PHYSICS 2300; PHYSICS 4300/5300. (Variable)

PHYSICS 6500. Special Problems in Physics — 1-6 hrs.

Credit determined at registration. Problems selected according to needs of students. Prerequisite(s): consent of department. (Variable)

POLSCI: Political Science Courses

POLSCI 1014. Power & Politics in the U.S. — 3 hrs.

Politics is about the exercise of power. This course examines the basic structure, organization, and institutional powers of American government. We will also examine how diverse citizens of the U.S. are linked to government through such things as political parties, interest groups, and elections. (Fall and Spring)

POLSCI 1020. Political Problems in the U.S.: (topic) — 3 hrs.

This course addresses topical political problems in the U.S. with a focus on problems related to human differences and diversity. Examples of topics may include wealth and income inequality, inequities in the criminal justice system, disparities in education policy, or the partisan divide. As part of addressing these problems, the course also covers different theoretical perspectives for thinking about politics, and supports students in developing skills for critically assessing information sources. Offered on specific topics listed in the Schedule of Classes. May not be repeated on different topics. (Fall and Spring)

POLSCI 1024. International Relations — 3 hrs.

Survey of various approaches to international relations with special emphasis on application to historical and contemporary cases. (Fall and Spring)

POLSCI 1025. Global Politics — 3 hrs.

This course explores the theory, methods, and key issues of comparative and international politics, emphasizing cross-regional analysis through the use of case studies. Students will examine topics such as political culture, participation, authoritarianism and democracy, economic policies, social class, and identity-based conflict. By engaging with global political challenges, students will apply core political science concepts—ranging from institutions and behavior to ideology and policy—to understand how people worldwide navigate political power and problems. (Fall and Spring)

POLSCI 1040. Comparative Politics — 3 hrs.

Examination of theory, methods, and problems of comparative politics with emphasis on cross-regional analysis. Use of case studies to look at such issues as political culture, parties, participation, dictatorship and democracy, economic policies and class, and racial, ethnic or religious conflict. (Fall and Spring)

POLSCI 1041. Global Challenges: (Topic) — 3 hrs.

This course will help students investigate the effect of politics and power by studying how people around the world respond to political problems. Students will learn about political science concepts related to government rules and institutions, political behavior and social movements, public policy, ideas and ideology, or others and apply them to current political problems that people are wrestling with around the world. May not be repeated on different topics. (Fall and Spring)

POLSCI 1042. Becoming Global Citizens — 3 hrs.

A responsibility of citizens in democracies is to be politically active. How can we be politically active as citizens of the world? Without global elections, we have to find other ways of influencing the key social issues of our time. This class helps students think about how to be politically active on the most important global issues. (Variable)

POLSCI 1048. Introduction to Public Administration — 3 hrs.

Most government employees who are making decisions, running programs and spending taxpayer money are not elected officials, but public servants. The purpose of this course is to examine the role of these bureaucrats in American government by developing an understanding of the history of the system, the tension between expertise and democracy, and the related issues that affect the American people and others around the globe. (Fall and Spring)

POLSCI 1060. B.S. Detection — 3 hrs.

This course seeks to give students the tools to understand what is happening in the world and decide what they should do about it. It is not about what to think, but about how to think. We often talk about critical thinking but what, exactly, does that mean? This course will help students learn to slow down and critically analyze information to help them improve their understanding of current events and develop the habits of mind that contribute to a life of active citizenship. (Fall)

POLSCI 1070. Democracy — 3 hrs.

Democracy is thousands of years old—both as an idea and a practice—but people are still fighting for it in the 21st century. Why are people still willing to fight, even die, to expand and deepen democracy? This course explores this question, and addresses more specific questions such as, what enables democracies to function well? What does a healthy democracy need from citizens? Is democracy really better than alternatives such as monarchy and dictatorship? In addition to enabling students to understand theories and practices of democracy, the course will also enable students to develop some of the skills required of citizens, such as working in diverse groups to address shared problems, and deliberating about complex questions. (Fall and Spring)

POLSCI 2010. Analyzing Politics — 3 hrs.

Political issues can be divisive, but it is necessary to develop the skills and habits of rigorous analysis in order to understand the political phenomena around us. Students will explore various approaches to the scientific study of politics. (Fall and Spring)

POLSCI 2050. Introduction to Political Theory: Freedom, Justice and Power — 3 hrs.

A good politics is guided by ideals such as freedom and justice. But what do those words mean? How does power operate—either to

Course Descriptions

promote or to prevent the achievement of freedom and justice for all people? Readings range from the ancient world to the contemporary, including thinkers such as Socrates, J.S. Mill, Martin Luther King Jr., and bell hooks. (Fall and Spring)

POLSCI 2131. American State Politics — 3 hrs.

Analysis of organization, functions, and operation of state and local governments. (Fall)

POLSCI 2147. Law, Politics, and Society — 3 hrs.

Law structures our personal, business and civic lives, and when courts resolve disputes about the law their decisions affect our politics and society. This course examines how the legal system works and explores its social and political effects. May include discussion of topics such as racial and socioeconomic barriers to access to justice, tort reform, policing strategies, and crime policy. (Spring)

POLSCI 3111. Politics and Statistics — 3 hrs.

Political science is, by definition, a science and as such is based on empirical research. The purpose of this course is to give students the necessary tools to study politics using quantitative methodology. Emphasis will be placed on the use of quantitative estimation techniques commonly used by political scientists. (Fall)

POLSCI 3112. Campaigns and Elections — 3 hrs.

Systematic examination of structure and functions of modern electoral campaigns for national, state, and local offices. (Even Falls)

POLSCI 3119. Politics of the Global Economy — 3 hrs.

Analysis of how the pursuit of power and the pursuit of wealth interact in international relations. Emphasis on trade policy, monetary and financial policies, economic development, and the politics of globalization since 1945. (Variable)

POLSCI 3120. International Security — 3 hrs.

Survey of the nature and causes of war, and the methods states use to achieve security. Examination of such issues as arms races, alliances, military technology, and military strategy and their relation to the politics of international relations. Analysis of methods for resolving conflicts and promoting peace. (Variable)

POLSCI 3121. Unconventional Warfare — 3 hrs.

Focus on terrorism, insurgency, and guerrilla warfare. Examination of theoretical, practical, and policy issues related to the law, ethics, motivations, conduct, and resolution of conflict between unequal and unlike groups. (Variable)

POLSCI 3122. Alliance Politics — 3 hrs.

Examination of military alliances and their relationship to war and peace. Topics evaluated include alliance formation, endurance, and dissolution. Emphasis placed on connecting theory to practice through the engagement of historical and contemporary cases. (Even Springs)

POLSCI 3123. Nationalism — 3 hrs.

Analysis of causes, forms, and consequences of nationalist movements. Consideration of experiences of nation-states and multi-national states. Evaluation of major theoretical approaches to study of nationalist movements and application to several specific cases. (Variable)

POLSCI 3125. Politics of International Development — 3 hrs.

Since the end of the Cold War, the international community has become more concerned with poverty, hunger, deprivation, the spread of disease and violence in all forms. This course studies the political dynamics that lead to action or that perpetuate inaction. (Variable)

POLSCI 3126. Human Rights — 3 hrs.

Examination of the origins and development of the concept of Human Rights. Review of the major challenges to global human rights,

including genocide, racism, political repression, national/religion oppression, and gender discrimination. Emphasis on the international institutions, norms, and policies of states and non-state actors to define and promote human rights. (Variable)

POLSCI 3127. United States Foreign Policy — 3 hrs.

Historical and theoretical examination of the individual, domestic, and systemic factors which affect formulation of United States foreign policy. (Variable)

POLSCI 3129. Political Thought in the U.S. — 3 hrs.

Political ideals have shaped the political institutions, practices, and culture of the U.S., even though our ideals of democracy and freedom have conflicted with realities of exclusion and slavery, and the "American Dream" has at times been undermined by inequality of opportunity. This course explores these tensions, analyzing works of foundational thinkers such as Madison and Jefferson, as well as thinkers aiming to deepen our democracy in the centuries since the founding. (Variable)

POLSCI 3130. Autocratic Politics — 3 hrs.

Examination of the origins and consequences of autocracy. Emphasis placed on studying how autocratic leaders make decisions and how these decisions influence important outcomes like regime survival and state development. (Even Falls)

POLSCI 3132. Community Politics — 3 hrs.

Introduction to structure, functions, and policies of American local government in context of economic, social, and intergovernmental forces. (Variable)

POLSCI 3134. Congress: The First Branch — 3 hrs.

Congress is the first branch, by virtue of being specified in Article I of the Constitution. We will think critically about the role of Congress in the American system of government, how we get it, what it does, and what it does not do. Students will assess evidence of whether Congress can properly be viewed as broken, or not. Prerequisite(s): POLSCI 1014. (Odd Falls)

POLSCI 3135. Politics in Europe — 3 hrs.

Examination of the development of European political institutions, issues, and policies. Social democracy, the European Union, and challenges to democracy are addressed. (Variable)

POLSCI 3140. Decision-Making in Nuclear Politics — 3 hrs.

Examination of how and why leaders develop nuclear weapons, weigh the consequences of nuclear use, and (sometimes) reverse their weapons programs. Emphasis placed on application of theory to real-world examples. (Even Springs)

POLSCI 3141. Constitutional Law — 3 hrs.

Analysis of U.S. Supreme Court decisions and changes in doctrine over time and the political forces affecting these changes. Emphasis on the powers and constraints of the federal government, separation of powers, and federalism. Prerequisite(s): POLSCI 1014 or POLSCI 2147 or POLSCI 3146. (Fall)

POLSCI 3143. International Law — 3 hrs.

Survey of international law from its development to contemporary issues. (Variable)

POLSCI 3144. Civil Rights and Liberties — 3 hrs.

Examines the Supreme Court's role in establishing and protecting individual rights and liberties from government intrusion. Emphasis on the 14th Amendment of the Constitution. Includes issues of free speech, freedom of religion, discrimination, and privacy. (Spring)

POLSCI 3145. International Organizations — 3 hrs.

Description of international governmental and nongovernmental organizations, and analysis of their roles in international politics. (Variable)

POLSCI 3146. Judicial Politics and Policy-making — 3 hrs.

Theoretical and empirical examination of the role of appellate courts, especially the U.S. Supreme Court, within the American political system. Examination of theories of judicial decision making, the influence of politics on law and judges, and the impact of court decisions on public policy. (Even Falls)

POLSCI 3150. Public Opinion and Voting Behavior — 3 hrs.

Theoretical and empirical analyses of public opinion, political attitudes, political socialization, as well as voting behavior and political participation. [Same as PSYCH 3150] (Spring)

POLSCI 3151. Modern Presidency — 3 hrs.

Examination of constitutional, electoral, administrative, and political aspects of the modern American presidency as they have evolved from FDR to the present. Prerequisite(s): POLSCI 1014. (Spring)

POLSCI 3153. Leadership and Management in Public Service — 3 hrs.

This course provides students the opportunity to study the political nature, characteristics and operation of American public organizations. Students will analyze the internal and external factors that explain how public organizations operate, including theories and models of leadership and internal dynamics of public organizations and their role in the American political system. (Fall)

POLSCI 3160. Classical Political Theory — 3 hrs.

The nature of justice, arguments for and against democracy, the foundations of political knowledge, and the nature of political communities, as understood by the thinkers of classical Greece. (Variable)

POLSCI 3161. Modern Political Theory — 3 hrs.

Western political thought from Machiavelli to Nietzsche, including the philosophical foundations for the American system of government (liberal and civic republican thought). (Variable)

POLSCI 3162. Power: Political Theories & Applications — 3 hrs.

This course explores contemporary theories of power and their relationships to political events and movements of the 20th and 21st centuries. Students will complete projects to build their familiarity with a particular set of theories and the ways in which those theories respond to or inspire social and political events - from government-sponsored injustices to liberation movements. This course will enable students to develop their capacities for making reasoned judgments about politics and using theory as a tool to develop political meanings that go beyond ideology. (Variable)

POLSCI 3164. Russian Politics — 3 hrs.

Analysis of regimes and regime changes in Russia and Eurasia generally. Examination of institutions, contemporary issues, and policies in comparative context. (Variable)

POLSCI 3166. Political Parties and Interest Groups — 3 hrs.

The history and evolution of political parties and interest groups in the American political system with a focus on their impact on the policy process. This course emphasizes how changes in the political environment including the rise of Super PACs, increased polarization and the use of social media for political mobilization are influencing the role each plays in elections and policy adoption. Prerequisite(s): POLSCI 1014. (Variable)

POLSCI 3170. East Asian Security — 3 hrs.

Examination of patterns of conflict and cooperation in East Asia. Primary focus placed on relations between China, Japan, Taiwan, the two Koreas, and the United States since the end of World War II. (Even Springs)

POLSCI 3172. Public Budgeting — 3 hrs.

Historical development of current budgeting practices; politics of budgetary process at federal, state, and local levels; current methods of budgeting for public agencies, focusing on integration of budgeting into program planning. (Spring)

POLSCI 3174. Management of Public Human Resources — 3 hrs.

Development of current government personnel practices; contemporary issues in personnel administration; techniques of job analysis; recruitment and selection of employees; and problems of supervision and evaluation. Prerequisite(s): POLSCI 1014; POLSCI 1048. (Variable)

POLSCI 3181. Internship in Politics — 3-8 hrs.

Student serves as intern with government official or in public or private agency: (1) Federal; (2) State; (3) Local; (4) Intergovernmental; (5) Legal; (6) Interest Group; (7) International; and (8) Electoral. Prerequisite(s): POLSCI 2010; 15 hours of political science; Political Science, Political Communication, or Public Administration major; junior standing and consent of department. (Fall, Spring, Summer)

POLSCI 4130/5130. Iowa Politics — 3 hrs.

Emphasis placed on the origins of Iowa's governmental structure, the three branches of government, and its unique role in presidential politics. Will examine some of the perennial issues facing the state. Prerequisite(s): junior standing. (Spring)

POLSCI 4142/5142. Problems in Juvenile and Family Law — 3 hrs.

Aspects of juvenile and family law; how legislature and courts have developed juvenile and family law, including marriage and divorce, adoption, and competency of minors. Prerequisite(s): junior standing. (Fall and Spring)

POLSCI 4143/5143. Citizen Participation and Civic Engagement — 3 hrs.

Introduces the key issues and problems affecting citizen participation and engagement at the community and national levels. Prerequisite(s): junior standing. (Variable)

POLSCI 4160/5160. Political Communication — 3 hrs.

Study of the elements of national and/or local political communication, including the rhetoric of political campaigns, and/or the rhetoric of elected officials. Prerequisite(s): junior standing. (Same as COMM 4216/5216) (Fall)

POLSCI 4173. Politics and Public Policy — 3 hrs.

Can we predict public policy? The short answer is "no." Public policies are the result of human decisions, a process which is not always rational. This course will examine why by focusing on biases in human decision making and how such biases can help improve our understanding of the policy process. Prerequisite(s): POLSCI 1014; POLSCI 1048; junior standing. (Fall)

POLSCI 4175/5175. Women in Politics — 3 hrs.

Theoretical, historical, and empirical studies of the role of women as political actors, policy issues affecting women, and the role of gender in shaping political attitudes and perceptions, with particular emphasis on the U.S. experience. Prerequisite(s): junior standing. (Variable)

Course Descriptions

POLSCI 4176/5176. Topics in Public Policy — 3 hrs.

Explores the latest developments in the field of public policy research. Ongoing policy issues may be used as examples to illustrate theoretical developments or to introduce applications of course material. May be repeated under different topics. Prerequisite(s): junior standing. (Variable)

POLSCI 4177/5177. Political Psychology — 3 hrs.

Explores the connections between psychology and political phenomena, including leadership, decision making, intergroup relations, and persuasion. Prerequisite(s): junior standing. [Same as PSYCH 4177/5177] (Variable)

POLSCI 4184. Senior Seminar in Political Science — 3 hrs.

Examination of specific topics through application of theories and methods of political science analysis. Research papers required. Prerequisite(s): 24 credit hours of Political Science. (Fall and Spring)

POLSCI 4188/5188. Seminar in Public Administration — 3 hrs.

Advanced topics in public administration, such as essential and nonessential service delivery, fiscal administration, and community development. Introduces students to issues not covered in other public administration courses. Prerequisite(s): POLSCI 1048; junior standing. (Spring)

POLSCI 4189/5189. Readings in Political Science — 1-3 hrs.

May be repeated only with consent of department. Prerequisite(s): 12 hours in political science; junior standing; consent of department. (Fall, Spring, Summer)

POLSCI 4198. Independent Study.

(Fall, Spring, Summer)

POLSCI 5154. Public Service Leadership and Management — 3 hrs.

This course focuses on the theories and practice of leadership and management in the public and nonprofit sectors. Particular attention will be paid to the history behind the theories and concepts used in the analysis and discussion of leadership and management to understand their development, to what degree they may be applicable to other settings, and their strengths and weaknesses. The course will enable students to understand variations in different organizational settings, alternative bases of authority, diverse communication styles, as well as the exercise of leadership and its connection with management. (Variable)

POLSCI 5171. Public Budgeting and Financial Management — 3 hrs.

This course provides students the opportunity to study the local budgetary process and to explore with the following topics: budget document and budget process; the budget cycle; operating and capital budget; evolution of budget; the balanced budget; functions of the budget office; planning, adopting, implementing and controlling the budget; performance measures for public budgeting and budgeting for capital improvements. (Variable)

POSTSEC: Postsecondary Education: Student Affairs Courses

POSTSEC 2000. Supporting Students in Collegiate Environments — 3 hrs.

Students will discuss student affairs functional areas to support college students, differing higher education environments, and understanding college student populations. (Fall and Spring)

POSTSEC 3000. Exploring College Resources and the Student Affairs Profession — 1 hr.

The purpose of this course is to provide an overview of resources across campus. This course will introduce undergraduate students to the field of student affairs in the context of higher education. Course will include both instruction and hands-on learning opportunities. (Fall and Spring)

POSTSEC 3161. Undergraduate Internship in Student Affairs — 1-3 hrs.

Supervised experience in a postsecondary setting. Course is intended to be as a follow up to the Exploring the Student Affairs Profession course. May be repeated for maximum of 6 hours. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): POSTSEC 2000 or POSTSEC 3000. (Spring)

POSTSEC 6220. Leading and Advising — 3 hrs.

Provides an overview and skill development in the areas of Leadership and Advising. (Fall)

POSTSEC 6250. Teaching in College — 3 hrs.

Examination of issues and problems in college teaching including roles of the college teacher, factors affecting teaching and learning environment, learning theory, course planning, and teaching strategies. (Spring and Summer)

POSTSEC 6256. The Two-Year College — 3 hrs.

Provides an understanding of the mission, governance, operation, and student and faculty issues unique to the two-year college in the United States, with particular attention to Iowa. (Spring and Summer)

POSTSEC 6260. History of U.S. Higher Education — 3 hrs.

Overview of the historical development, issues, philosophies, and cultural backgrounds of higher education in America. (Fall)

POSTSEC 6262. Globalization of Education: Components, Issues, and Comparative Systems — 3 hrs.

This class will explore the impact of globalization on education and issues shaping educational policies and practices in the United States. The focus includes global networks and flow of ideas and practices, global marketing of educational products and services, world migration, and global models of education. Students will deepen their knowledge and understanding through investigation and comparison of educational systems and pathways to higher education. (Odd Summers)

POSTSEC 6264. Values, Philosophies and History of Student Affairs — 3 hrs.

Introduction to the field of college/university student services with applications of theory to practice, and including elements of history. (Fall)

POSTSEC 6265. Organizational and Personal Foundations for Student Affairs — 3 hrs.

This course will serve as a follow up to the Values, Philosophies and History of Student Affairs course. Topics covered include the administration of student affairs, history of student affairs and central concepts to the student affairs profession. (Spring)

POSTSEC 6268. Supporting College Students in Higher Education — 3 hrs.

The course will discuss higher education environments and the students who attend them. Additionally, the course will discuss student populations and the support needed for all to succeed. (Fall)

POSTSEC 6270. College Student Development — 3 hrs.

Addresses student development theories (moral, ethical, intellectual, and psychosocial), and their application in student affairs settings. (Fall)

POSTSEC 6273. Research and Assessment — 3 hrs.

Introduction to the basic research literacy necessary for student affairs profession. Prerequisite(s): admission to Postsecondary Education: Student Affairs program. (Fall)

POSTSEC 6274. Higher Education Law — 3 hrs.

Discusses Federal, State and local law and its impact on higher education. (Spring)

POSTSEC 6275. Professional Helping in College Student Affairs — 3 hrs.

Provides an overview of helping skills needed in the student affairs profession. Prerequisite(s): consent of instructor. (Spring)

POSTSEC 6289. Seminar in Postsecondary Education: Current Issues in Student Affairs — 3 hrs.

Provides preparation for work in the student affairs profession, including providing instruction on preparation of the final portfolio presentation. Prerequisite(s): consent of instructor. (Spring)

POSTSEC 6291. Internship in Postsecondary Education — 1-6 hrs.

Supervised substantive experience in a postsecondary setting. May be repeated for a maximum of 12 hours. (Variable)

POSTSEC 6299. Research.

Prerequisite(s): consent of department. (Variable)

POSTSEC 7274. Doctoral Higher Education Law — 3 hrs.

Discusses Federal, State, and local law from an administrative level perspective. Includes impact on higher education at both the institutional and general field level. (Spring)

POSTSEC 7311. Educational Leadership and Systems Change — 3 hrs.

Examination of knowledge base for both change and leadership. Emphasis on understanding how change factors and leadership styles interact to influence receptiveness to and acceptance of change. Prerequisite(s): doctoral status or consent of college. (Same as EDLEAD 7311) (Variable)

POSTSEC 7372. College Effects on Students — 3 hrs.

Reviews the research on the effects of higher education on students. Prerequisite(s): admission to the M.A. Postsecondary Education: Student Affairs program or admission to the Doctor of Education. (Variable)

POSTSEC 7373. Administration and Finance in Higher Education — 3 hrs.

This course is designed to provide information in the areas of administration and finance in higher education. (Variable)

POSTSEC 7374. Organizational Processes and Communication in Higher Education — 3 hrs.

This course is designed to provide information in the areas of organizational processes and communication in higher education. (Variable)

POSTSEC 7389. Seminar in Postsecondary Education.

Special topics as indicated in the schedule of classes. Prerequisite(s): consent of instructor. (Variable)

POSTSEC 7397. Practicum: Postsecondary Education — 1-3 hrs.

Advanced orientation and experience for Student Affairs majors in a professional setting. Offered on credit/no credit basis only. May

be repeated for maximum of 6 hours. Prerequisite(s): consent of instructor. (Variable)

PRODINNO: Product Innovation

Courses

PRODINNO 1000. People, Culture, and Industry — 3 hrs.

An introduction to the product design industry, with a focus on understanding the cultural, social, economic and sustainability issues. The class includes projects focused on the role of innovative ideas within the industry, exploring the impact on human experience, and following contemporary trends. (Variable)

PRODINNO 2000. Quality Assurance — 3 hrs.

Learn about design materials. Discuss material performance expectations and methods through physical lab testing. (Variable)

PRODINNO 3000. Branding Strategies for the Industry — 3 hrs.

Application of sociology, anthropology and psychological concepts and theories to branding strategies. Includes modules focused on theories underlying and the application of sustainability principles. The culminating project for each student is an empowerment brand. Prerequisite(s) or corequisite(s): PRODINNO 1000. (Variable)

PRODINNO 4000. Product Development — 3 hrs.

Application of product development concepts and procedures for planning, developing, sourcing, and producing product lines for identified target markets based on market research. Prerequisite(s) or corequisite(s): INTDSGN 1001. (Variable)

PRODINNO 4184/5184. Topics in Product Innovation — 1-3 hrs.

Selected topics relating to current issues in product innovation. Topics to be announced in the Schedule of Classes. May be repeated on different topic for maximum of 6 hours. Prerequisite(s): junior standing. (Variable)

PSM: Professional Science Master's

Courses

PSM 6100. Business Management for Science Professionals — 3 hrs.

Designed to provide science professionals with a strong foundation of critical business knowledge and skills, including strategic management, accounting, legal issues, personnel management, and communication styles and formats. Prerequisite(s): PSM 6289. (Fall and Spring)

PSM 6289. Professional Science Master's Seminar — 1 hr.

Weekly seminar for Professional Science Master's students which alternates student presentations with discussions between students and company representatives. Presentations are on select industries or corporations, one presentation every other seminar session. Alternate weeks are devoted to discussions with representatives of the selected companies. May be repeated for maximum of 3 hours. Prerequisite(s): admittance to the P.S.M. graduate program. (Fall and Spring)

PSM 6300. Team-Based Problem Solving — 3 hrs.

For P.S.M. Biotechnology and P.S.M. Ecosystem Management students. Discussion and/or lab, 5 periods. Prerequisite(s): PSM 6289; minimum of 6 hours completed in a P.S.M. degree program. (Fall and Spring)

Course Descriptions

PSM 6950. Professional Science Master's Internship — 1-6 hrs.

Supervised work experience for Professional Science Master's students. Students will receive appropriate industrial/corporate training in their specific field of expertise. Prerequisite(s): enrolled in P.S.M. program and consent of appropriate department head. (Fall and Spring)

PSYCH: Psychology

Courses

PSYCH 1001. Introduction to Psychology — 3 hrs.

Survey of basic principles in psychology including cognitive, emotional, social, developmental, and biological processes, and the scientific research methods used to learn about these processes. Course requires participation in psychological research; or an alternative acceptable to both students and the department which provides a similar educational experience. (Fall, Spring, Summer)

PSYCH 1093. Military Psychology — 1 hr.

Course topics focus on psychological issues encountered by veterans and active-duty military personnel, including resilience development, combat stress reactions, PTSD, suicide prevention, military culture, military selection, and leadership. Prerequisite(s): PSYCH 1001. (Fall and Spring)

PSYCH 2002. Professional Preparation in Psychology — 1 hr.

Familiarizes students with career options in psychology, helps students clarify personal interests and career goals, and prepares them for job searching or admission to graduate school. May be repeated for a maximum of 2 credits. Prerequisite(s): PSYCH 1001. (Fall and Spring)

PSYCH 2201. Psychology of Gender — 3 hrs.

General overview of the nature and meaning of gender, gender roles, and stereotypes; research on gender similarities and differences; gender development; and the effects of stereotypes and roles. Prerequisite(s): PSYCH 1001. (Fall and Spring)

PSYCH 2202. Developmental Psychology — 3 hrs.

Contemporary and historical theories of human development throughout the lifespan; description of cognitive, emotional, social, and physical changes over time. (Fall and Spring)

PSYCH 2203. Social Psychology — 3 hrs.

Overview of social psychology. Includes social perception and cognition, attraction and liking, social influence, group dynamics, and attitude formation and change. Prerequisite(s): PSYCH 1001. (Fall and Spring)

PSYCH 2301. Applied Psychology — 3 hrs.

Overview of various areas traditionally studied within applied psychology. Topic areas covered include work/occupational psychology, as well as areas related to legal issues, health, environment, education, counseling and abnormal behavior. Prerequisite(s): PSYCH 1001. (Fall and Spring)

PSYCH 2302. Psychology and Law — 3 hrs.

Study of psychological theory and empirical research as it relates to the law. Topics include witness memory, suspect identification, lineup procedures, false confessions, lie detection, juror cognition, and jury decision making. Prerequisite(s): PSYCH 1001. (Fall and Spring)

PSYCH 2401. Clinical Psychology — 3 hrs.

Contemporary practice of clinical psychology with emphasis on the theories and techniques of cognitive-behavioral interventions. Prerequisite(s): PSYCH 1001. (Fall and Spring)

PSYCH 2402. Psychology of Personality — 3 hrs.

Introduction to major theoretical models of personality and to applications derived from these theories, and an overview of empirical findings in selected topics in personality. Prerequisite(s): PSYCH 1001. (Fall and Spring)

PSYCH 2403. The Science and Experience of Human Flourishing — 3 hrs.

Explores the theoretical foundations, methodological approaches, and interventions of Positive Psychology and Positive Developmental Science to study positive emotions, experiences, relationships, meaning, and achievement. Additional topics include happiness, well-being, joy, purpose, optimism, resilience, character strengths, values, flow, wisdom, mindfulness, spirituality, meditation, post-traumatic growth, positive families, positive education, and positive work. [Same as FAM SERV 2403] (Variable)

PSYCH 2404. Psychology of Human Attributes — 3 hrs.

The nature and extent of human attributes as they apply to an understanding of general psychology of the individual and group differences in a social setting. Prerequisite(s): PSYCH 1001. (Variable)

PSYCH 2405. Desire, Love, and Hate — 3 hrs.

Survey of factors affecting attraction, interactions, and short and long term social relationships, including how interpersonal relationships affect our mental and physical health. Prerequisite(s): PSYCH 1001. (Spring)

PSYCH 2601. Psychology of Music — 3 hrs.

Introduction to the scientific study of psychology of music. Topics include physics of sound and psychoacoustics, pitch and rhythm representation, development of musical intelligence, emotion and meaning in music, functions of music in society, and music therapy. Prerequisite(s): PSYCH 1001. (Variable)

PSYCH 2701. Community Service/Experiential Learning — 1-3 hrs.

Students explore potential career options via volunteer opportunities at an approved location from 3-9 hours per week, after completing training required by the specific agency. Serves as a valuable hands-on learning experience. May be repeated for maximum of 6 credit hours. Prerequisite(s): PSYCH 1001; consent of instructor. (Variable)

PSYCH 3002. Research Methods — 4 hrs.

Introduction to fundamentals of psychological inquiry. Emphasis on experimental research but all major approaches (correlational, field, clinical, phenomenological) considered. Prerequisite(s): PSYCH 1001; plus 6 additional credit hours in psychology. (Fall and Spring)

PSYCH 3003. Psychological Statistics — 4 hrs.

Introduction to the basic methods of collecting, organizing, and analyzing psychological data. Emphasis on statistical inference (e.g., t tests, F tests, and selected non-parametrics). Provides the student with the basic statistical concepts and skills necessary for the laboratory and survey work and to provide adequate quantitative background for understanding psychological literature. Prerequisite(s): PSYCH 1001; PSYCH 3002; one college-level mathematics course or consent of instructor. (Fall and Spring)

PSYCH 3101. Biopsychology — 3 hrs.

Emphasizes how nature and nurture interact to allow genuine insight into the how and why of behavior including addiction, mental health, language, and perception. Takes account of recent discoveries that have transformed psychology and biology. Includes information on

brain functioning, hormones, and natural selection as they apply to human behavior. (Fall and Spring)

PSYCH 3102/5102. Drugs and Individual Behavior — 3 hrs.

Survey of the effects/side-effects of all categories of psychoactive drugs on brain, body, and behavior. Covers patterns of use and/or abuse of prescription, non-prescription and street drugs as well as an introduction to drug abuse treatment. Prerequisite(s): junior standing. (Fall and Spring)

PSYCH 3104/5104. Introduction to Neurology — 3 hrs.

Introduction to basic nervous system structure and function including the neuron, the forebrain and its specific functions, and brief coverage of methods of study and clinical neurology. Disorders of memory, brain injury, neurodevelopment and the role of environmental teratogens are covered. Prerequisite(s): PSYCH 1001; junior standing; written consent of instructor. (Variable)

PSYCH 3150. Public Opinion and Voting Behavior — 3 hrs.

Theoretical and empirical analyses of public opinion, political attitudes, political socialization, as well as voting behavior and political participation. [Same as POLSCI 3150] (Spring)

PSYCH 3179. Cooperative Education — 1-6 hrs.

For students who wish to apply classroom learning to field experience. Requires approval by the faculty supervisor, the head of the academic department granting credit, and Cooperative Education/Internship staff for placement agreement, project, and credit arrangements. Credit may not be applied to a major or minor without approval by the department offering the major or minor. Co-op/Internship staff assist in developing placements and arranging student interviews with employers and maintain contact with student and employer during the co-op/internship experience. May be repeated for maximum of 6 credit hours. (Fall, Spring, Summer)

PSYCH 3204/5204. Psychology of Aging — 3 hrs.

Analysis of the factors affecting adult development and aging. Emphasis on physiological, cognitive, sensory, personality, and interpersonal changes occurring with age. Prerequisite(s): PSYCH 1001; junior standing. (Fall and Spring)

PSYCH 3303/5303. Health Psychology — 3 hrs.

Overview of the contribution of social, personality, and clinical psychology to: a) an understanding of the psycho-social variables affecting physical illness and disease; b) the development of assessment and intervention strategies for comprehensive illness management and rehabilitation; and c) the promotion and maintenance of health-enhancing behavior. Prerequisite(s): PSYCH 1001; junior standing. (Fall and Spring)

PSYCH 3304. Work Psychology: Well-Being — 3 hrs.

Explores how psychological science can improve health and happiness at work. This course focuses on the characteristics of work and workers impacting satisfaction, motivation, leadership, teamwork, and health and safety. (Fall and Spring)

PSYCH 3305. Work Psychology: Performance — 3 hrs.

Explores how psychological science can improve performance at work. The course focuses on maximizing performance by selecting prospective employees, training employees, and engaging with employees through performance evaluation. (Fall and Spring)

PSYCH 3310. Psychology of Science and Pseudoscience — 3 hrs.

Daily, we are bombarded with interesting and novel breakthroughs involving claims that may or may not be true. In this age of fake news, alternative facts, and evidence-free assertions, critical thinking is of paramount importance. In this course, students will distinguish

science and pseudoscience; identify logical fallacies and cognitive biases involved in pseudoscientific thinking; and critically evaluate current controversies (e.g., vaccines, alternative medicine, conspiracy theories) from multiple perspectives. (Fall and Spring)

PSYCH 3403/5403. Abnormal Psychology — 3 hrs.

Definition, classification, and characteristics of abnormal behaviors and major mental disorders. Review of the causes and treatment of major mental disorders. Prerequisite(s): PSYCH 1001; junior standing. (Fall, Spring, Summer)

PSYCH 3502/5502. Motivation and Emotion — 3 hrs.

Addresses genetic, environmental, physiological, and emotional influences; goal setting; psychological and social needs; self and personality. Prerequisite(s): PSYCH 1001; junior standing. (Fall and Spring)

PSYCH 3505/5505. Cognitive Psychology — 3 hrs.

Investigation of basic concepts and contemporary topics in cognitive psychology such as perception, attention, pattern recognition, consciousness, memory, the representation of knowledge, language, cognitive development, thinking, and artificial intelligence. Prerequisite(s): PSYCH 1001; junior standing. (Fall and Spring)

PSYCH 3510. Improve Health With Decision Science — 3 hrs.

People make daily choices that impact their health and well-being. This course will explore a wide range of health-related behaviors through a decision-making lens, examining how they are influenced by emotions, cognitions, personality, and environmental factors. By gaining insight into the obstacles to better decision making, we can understand how to improve people's health and lives. Prerequisite(s): PSYCH 1001. (Variable)

PSYCH 3603/5603. Child and Adolescent Psychopathology — 3 hrs.

Overview of childhood problems ranging from minor problems in adjustment to severely disabling disorders; primary focus on research findings relevant to assessment, etiology, prognosis, and management. Prerequisite(s): PSYCH 1001; plus any one from FAM SERV 1055, PSYCH 2202, EDPSYCH 2030, or equivalent, or consent of instructor; junior standing. (Fall and Spring)

PSYCH 3606/5606. Special Topics in Social Psychology — 3 hrs.

In-depth coverage of an applied topic in social psychology and the design of social psychology research. Students will be required to complete a project, which may or may not include the collection of data, in the topical area. Topics may include, but are not limited to, social cognition, emotion, interpersonal relationships, aggression, persuasion, altruistic behavior, identity and group dynamics. Prerequisite(s): PSYCH 1001; PSYCH 3002; PSYCH 2203; junior standing. (Variable)

PSYCH 4177/5177. Political Psychology — 3 hrs.

Explores the connections between psychology and political phenomena, including leadership, decision making, intergroup relations, and persuasion. Prerequisite(s): junior standing. [Same as POLSCI 4177/5177] (Variable)

PSYCH 4198. Independent Study — 1-3 hrs.

Under special circumstances, students may study a topic of interest under the supervision of an individual faculty member. Generally, three hours of independent reading per week per credit hour. May be repeated for a maximum of 6 credit hours. Prerequisite(s): consent of instructor. (Variable)

Course Descriptions

PSYCH 4604/5604. Principles of Psychometrics — 3 hrs.

Exploration of contemporary theories and principles basic to the construction and clinical use of psychological tests. Students will learn how to (a) critically evaluate psychological tests (e.g., self-report and interview methods) and (b) develop and validate self-report instruments, using contemporary psychometric principles and procedures. Prerequisite(s): PSYCH 1001; PSYCH 3002; PSYCH 3003; junior standing. (Variable)

PSYCH 4607/5607. Psychological Anthropology — 3 hrs.

Psychological dimensions of sociocultural systems from a cross-cultural perspective. Analysis of universals and cultural variation in cognition, socialization, concepts of the self, emotion, and mental illness. Prerequisite(s): PSYCH 1001 or ANTH 1002; junior standing. (Variable)

PSYCH 4608/5608. Gender in Cross-Cultural Perspective — 3 hrs.

Evolutionary, biological, psychological, cognitive, social, and cultural theories of gender and gender inequality evaluated with respect to cross-cultural data. Prerequisite(s): PSYCH 1001 or SOC 1000 or ANTH 1002; junior standing. (Same as ANTH 3104/5104) (Variable)

PSYCH 4609/5609. Seminar in Psychology — 1-3 hrs.

Provides opportunity to correlate previous course work and knowledge in field of psychology. May be repeated for maximum of 6 hours. Prerequisite(s): PSYCH 1001; PSYCH 3002 or consent of instructor; 15 hours in psychology; junior standing. (Variable)

PSYCH 4704/5704. Practicum in Teaching Psychology — 1-3 hrs.

Organization and teaching of psychology; student serves as participant-observer, with advance approval, in any PSYCH xxxx course. May be repeated for a maximum of 6 credit hours. Prerequisite(s): Psychology GPA 3.00 or higher; B+ or higher in the course for which student will participate; junior standing. (Fall, Spring, Summer)

PSYCH 4705/5705. Research Experience in Psychology — 1-3 hrs.

Conduct a supervised research or scholarly project. Highly recommended for students planning to enter graduate programs. Majors with an overall GPA of at least 3.50 may earn departmental honors if their projects are deemed worthy of honors by the department. May be repeated for a maximum of 12 credit hours. Prerequisite(s): PSYCH 1001; PSYCH 3002; 15 hours in psychology; junior standing; consent of instructor. (Fall, Spring, Summer)

PSYCH 6001. Advanced Statistics — 3 hrs.

Review of elementary descriptive and inferential statistics, analysis of variance and covariance models, multiple linear regression and the generalized linear model, and specialized topics in multivariate analysis. Prerequisite(s): previous courses in statistics; graduate standing in psychology or consent of instructor. (Fall)

PSYCH 6002. Research Design — 3 hrs.

Covers the planning and execution of psychological research. Topics include research design, measurement, ethical issues, sources of artifact and bias, data evaluation, and interpretation. Prerequisite(s): PSYCH 6001; graduate standing in psychology or consent of instructor. (Spring)

PSYCH 6003. Graduate Practicum in Teaching Psychology — 1 hr.

Preparation for and supervised experience as an introductory psychology instructor. Required course for all first-semester Teaching Fellows; may be taken by graduate students planning to apply for teaching fellowships. May be repeated. Some course work required

before the start of first teaching semester. Prerequisite(s): graduate standing in psychology. (Variable)

PSYCH 6006. Research in Psychology — 1-3 hrs.

Conduct a supervised research project. May be repeated for maximum of 9 hours. Prerequisite(s): graduate standing in psychology; consent of graduate coordinator and instructor. (Fall, Spring, Summer)

PSYCH 6203. Personality — 3 hrs.

Comparative study of major personality theories and techniques of personality assessment. Prerequisite(s): graduate standing in psychology or consent of instructor. (Even Springs)

PSYCH 6204. Advanced Social Psychology — 3 hrs.

Covers the major areas of classic and current research in social psychology. Students engage in an in-depth, critical analysis of the research in areas including, but not limited to, conformity, obedience, social norms, social cognition, interpersonal relationships, aggression, and helping behavior. Substantial proportion of the course focuses on social cognition. Examines the socio-historical context of social psychology and the application of social psychological research. Prerequisite(s): an undergraduate course in social psychology; graduate standing in psychology or consent of instructor. (Fall)

PSYCH 6205. Advances and Developments in Social Psychology — 1 hr.

Seminar involving presentations and discussion of current research in social psychology. May be repeated for maximum of 4 hours credit. Credit/no credit basis only. Prerequisite(s): graduate standing in psychology (Social Psychology emphasis) or consent of instructor. (Fall and Spring)

PSYCH 6206. Field Methods in Social Psychology — 3 hrs.

This course is an introduction to survey science, experimental field methods, and quasi-experimental designs used in the social and behavioral sciences. The course will explore design principles for surveys, field and quasi-experiments and common challenges encountered when implementing such methods. Students will be introduced to principles of survey process, sampling, modes of survey data collection, issues of experimental compliance, randomization inference, and attrition. Students will be asked to participate actively in discussions, and complete weekly and semester-long projects in order to integrate social psychology questions into survey, field, and quasi-experimental research methodologies. Prerequisite(s): Graduate standing in Psychology (Social emphasis) or consent of instructor. (Spring)

PSYCH 6285. Readings in Psychology — 1-3 hrs.

Individualized readings. May be repeated for maximum of 6 hours. Prerequisite(s): consent of instructor. (Fall, Spring, Summer)

PSYCH 6289. Seminar.

(Variable)

PSYCH 6299. Research.

Prerequisite(s): consent of department. (Fall, Spring, Summer)

PSYCH 6401. Cognitive Assessment — 4 hrs.

Introduction to the standardized administration of cognitive and achievement tests. Students will learn best practices for ethical, technically competent, empirically supported assessments. Prerequisite(s): Graduate standing in psychology (Clinical Science emphasis) or consent of instructor. (Fall)

PSYCH 6405. Personality Assessment — 4 hrs.

Overview of theoretical and empirical issues in personality measurement. Examines psychometric properties of traditional personality assessment techniques, and utility of behavioral and

objective assessment in diagnosis. Prerequisite(s): Graduate standing in psychology or consent of instructor. (Spring)

PSYCH 6406. Adult Psychopathology and Diagnosis — 3 hrs.
Reviews diagnostic issues and covers the major mental disorders in the Diagnostic and Statistical Manual of Mental Disorders. Includes coverage of symptoms, prevalence and incidence, risk factors and correlates, etiology, and differential diagnosis issues. Prerequisite(s): graduate standing in psychology or consent of instructor. (Spring)

PSYCH 6410. Child Psychopathology and Diagnosis — 3 hrs.
An overview of diagnostic and assessment issues in the most common types of childhood psychopathology, as well as an in-depth examination of evidence-based treatments for these disorders. Prerequisite(s): graduate standing in the Psychology department or related field. (Spring)

PSYCH 6418. Internal Clinical Practicum — 1-3 hrs.
Supervised experience as a psychologist-trainee in the UNI Psychological Assessment Clinic. May be repeated for maximum of 3 hours. Prerequisite(s): Graduate standing in psychology (Clinical Science emphasis), grade of B- or higher in all courses. (Fall and Spring)

PSYCH 6419. Internship — 3 hrs.
A course for students on the Professional Track of the Clinical Science Emphasis in the Psychology MA program. These students will complete advanced clinical training at an agency either on campus or off campus. Students will see clients and will be exposed to additional professional experiences. Prerequisite(s): Graduate standing in Psychology (Clinical Science emphasis). (Spring)

PSYCH 6425. Practicum Team — 3 hrs.
In a vertical team of graduate students, this course covers therapy skills, clinical ethics, and evidence-based psychological practice through relevant clinical readings, case studies, and professional clinical experiences. Less advanced students will learn primarily through academic means, whereas more advanced students will also learn through clinical practicum experiences. Prerequisite(s): Graduate standing in Psychology (Clinical Science Emphasis). (Fall and Spring)

PUBPOL: Public Policy

Courses

PUBPOL 6201. Politics and Public Policy — 3 hrs.
Defining and focusing on the non-linear aspect of the policy process, including an emphasis on non-rational decision making. Analysis of legislative, executive, and bureaucratic influences. Understanding how policy images and public perception shape the formation of public policy and evaluation techniques. (Odd Falls)

PUBPOL 6204. Program Evaluation in Public Policy — 3 hrs.
Theory and practice of program evaluation and evaluative research from both quantitative and qualitative perspectives. (Even Falls)

PUBPOL 6220. Public Policy, Advocacy and Public Funding — 2 hrs.
Policy context of philanthropy and nonprofit development; the role of nonprofits in policy development and advocacy. Prerequisite(s): admission into the Philanthropy and Nonprofit Development graduate program. (Variable)

PUBPOL 6230. Ethics in Public Policy — 3 hrs.
Examination of widely accepted moral philosophies and non-rational approaches to ethical judgments; application of ethical principles and

analytic methods to decision-making in public policy. Specific topics will vary, in accordance with current events. (Variable)

PUBPOL 6260. Policy Analysis: Methods and Approaches — 3 hrs.
Research methods and approaches for analyzing and evaluating public policy choices and impacts. Understanding the context and purposes of policy analysis. Defining policy research questions and developing research designs. Selecting and applying appropriate research methods to policy problems. Prerequisite(s): enrollment requires admission to the graduate program in Public Policy, or consent of Director of Graduate Program in Public Policy. (Odd Falls)

PUBPOL 6275. Quantitative Methods for Politics and Policy — 3 hrs.
Statistical methods appropriate to study of political science and public policy, including hypothesis testing using parametric and nonparametric tests, correlation and bivariate regression, experimental methods, logistic regression and multiple regression. (Even Springs)

PUBPOL 6276. Data Collection, Reporting, and Analysis — 3 hrs.
Introduction to quantitative and qualitative data collection, reporting, and analysis for the study of public policy. Students will have the opportunity to explore real world data sets using the tools and analytical skills learned throughout the course to produce policy memos or reports informed by data analysis. (Even Falls)

PUBPOL 6280. Capstone: Policy Practicum — 3 hrs.
Provides students with an opportunity to apply the data analytic and program evaluation skills learned throughout the program by partnering with selected organizations in surrounding communities to engage in policy analysis and decision making. (Odd Springs)

PUBPOL 6281. Internship in Public Policy — 3 hrs.
Field experience for students enrolled in Master of Public Policy degree program. (Summer)

PUBPOL 6285. Readings in Public Policy — 1-3 hrs.
Registration requires written consent of Program Director. May be repeated. (Odd Summers)

RELS: Religion

Courses

RELS 1020. Religions of the World — 3 hrs.
Living religions with emphasis on texts, beliefs, tradition, values, and practices. (Fall, Spring, Summer)

RELS 1040. The Power of Myth: (Topic) — 3 hrs.
The Power of Myth examines the functions of "myth" in religious texts, beliefs, rituals, institutions, and communities. Drawing upon key methods and approaches in the Study of Religion, this course introduces students to myths and myth-making as a creative, historical-cultural expression found in many religious communities. Specific myths will be examined in this course as well as its relationship to specific cultural contexts and communities. Topic and theme will differ across sections, but will draw from a range of creative works from ancient sacred texts to popular US culture. May be repeated for a maximum of 6 hours on different topics. (Fall and Spring)

RELS 1060. American Religious Diversity — 3 hrs.
American Religious Diversity examines the meanings and functions of religion in the United States by focusing on minoritized and marginalized religious identities, communities, and institutions. Drawing upon methods used in the cultural study of religion, students will gain greater awareness of the rich diversity of religious life in the

Course Descriptions

United States while also learning about historical instances of religious intolerance within US history. (Fall and Spring)

RELS 1510. Religion, Ethics, and Film — 3 hrs.

Introduction to study of religion through critical examination of a variety of contemporary films. Draws on student visual literacy as an approach to the study of religion. (Variable)

RELS 1540. Ethics in Business — 3 hrs.

Application of ethical principles and analytic methods to contemporary issues in business. Topics include moral responsibility of corporations and their regulation; economic policy, business practices, and social justice; rights and obligations of employers and employees; meaningful work, motivation, and the worker; affirmative action and reverse discrimination; and environment and natural limits of capitalism. (Same as PHIL 1540) (Variable)

RELS 2001. Old Testament and Other Hebrew Scriptures — 3 hrs.

Introduction to history and ideas of Old Testament and other Hebrew scriptures. (Fall)

RELS 2002. New Testament and Early Christian Writings — 3 hrs.

Introduction to history and ideas of New Testament and early Christian writings. (Spring)

RELS 2070. Ethics in the Age of AI — 3 hrs.

Both professionally and personally, our lives are increasingly intertwined with artificial intelligence. In this class, normative ethical concepts and value traditions will be brought to bear on the emergence of generative AI. Students will be given the opportunity to reflect on the ties between emerging technology and their own values. Topics may include but are not limited to: AI in research and intellectual labor, AI in the learning process, AI and the workforce, AI and the future of humanity, AI's potential impact on human skill sets and social aptitudes, AI and the environment. [Same as PHIL 2070] (Variable)

RELS 2100. Hinduism and Buddhism — 3 hrs.

Hinduism, Buddhism, Islam. (Even Falls)

RELS 2110. Confucianism, Daoism, and Zen — 3 hrs.

Daoism, Confucianism, Buddhism, Shintoism. (Odd Falls)

RELS 2120. Judaism and Islam — 3 hrs.

Study of the doctrines and practices of Judaism and Islam in their cultural context with attention to historical development and current situation. (Odd Springs)

RELS 2130. Christianity — 3 hrs.

Introductory survey of development, beliefs, practices, and varieties of Christianity. (Even Springs)

RELS 2140. Philosophy of Religion — 3 hrs.

Examination of philosophical discussions on the nature and function of religion and religious language; special attention to how philosophical frameworks and methods shape understanding of religion and talk about God and human fulfillment. (Same as PHIL 2140) (Variable)

RELS 2220. Faith and Reason: Philosophy in the Middle Ages — 3 hrs.

Traces the historical development of philosophical thought on the interrelation of religious faith and reason in Jewish, Christian, and Islamic philosophical traditions. (Same as PHIL 2220) (Even Springs)

RELS 2550. Environmental Ethics — 3 hrs.

Introduction to and application of ethical theory to environmental issues, including responsibility for plants and animals, pollution,

natural resources, and population growth. (Same as PHIL 2550) (Variable)

RELS 2570. Good Sex: The Ethics of Human Sexuality — 3 hrs.

This course introduces students to a range of ethical perspectives (religious and non-) on what constitutes good sex, morally speaking. It then brings these perspectives to bear on a number of issues in the realm of sexual ethics including: homosexuality, casual sex, sex for sale, and abortion. [Same as PHIL 2570] (Even Springs)

RELS 2600. Religion and the Public Schools — 3 hrs.

This course is a study of the relationship between religion, law, and public education in the United States. Through this course, students will understand how and why the role of religion in public education has been lived, legislated, and adjudicated in complicated (and sometimes contradictory) ways. This interdisciplinary course draws from studies of education, law, political science, history, and religion. (Even Falls)

RELS 3080/5080. Individual Readings in Religion — 1-3 hrs.

Individually-arranged readings and reports from: (1) biblical studies, (2) history of religions, or (3) contemporary religious thought. Can be repeated for maximum of 6 hours. Prerequisite(s): junior standing; consent of department head. (Fall and Spring)

RELS 3110. Perspectives on Death and Dying — 3 hrs.

Multidisciplinary study of death, dying, and bereavement across cultures, religious and ethnic groups, and historical periods, with attention to ritual and memoir, ethical dilemmas at the end of life, and psychology of mourning. (Same as CAP 3194 and PHIL 3110) (Fall and Spring)

RELS 3150. Women and Christianity — 3 hrs.

Examination of history and function of gender in symbolization of Christian tradition; exploration of institutionalization of sex roles in Christianity; discussion of interaction between the Christian religion and cultural patterns that define the social role, status, and image of women. Interested students are encouraged to contact the instructor. (Variable)

RELS 3180. Religion and Politics: (Topics) — 3 hrs.

In this course, students will examine the relationship between religion and politics. Students will familiarize themselves with the ways religion shapes several aspects of political life, such as elections, public activism, policy-making, civil service, and civic discourse. Focusing on interactions within and among religious traditions, students will develop their knowledge of critical thinking methods in Religious Studies by analyzing the role of religion in political participation and political structures. Special emphasis will be given to understanding contemporary issues, rotating international and domestic topics each time it is offered. May be repeated for up to 6 hours. (Odd Falls)

RELS 3200. Religion and Law — 3 hrs.

Americans have long argued about the proper role of religion in public life: can the Bible be taught in schools? What about contemporary flashpoints like abortion and same-sex marriage? Why do religious groups receive special privileges and exemptions under American law? As a class, we will consider how religious groups work alongside and against U.S. law and how, in turn, American law engages, encourages, and restricts religious practice in America. Challenges and debates in American religion and law have reflected the changing nature of the people who make up the United States. We will explore these questions through examining how religion and law affects American politics, education, and the marketplace. (Even Springs)

RELS 3300. Bible and Ethics — 3 hrs.

This course introduces students to philosophical theories of ethics and applies those theories to biblical stories and themes. (Variable)

RELS 3400. Religion and Race — 3 hrs.

This course is a study of the relationship between religion and race in the modern era. Through this course, students will understand how and why ideas about "race" have been invented and maintained, as well as how these ideas have themselves been co-constituted alongside longstanding religious ideas and practices. Particular attention will be paid to the way in which governments mark religious and racial differences through legislation and policing. This course argues that the study of religion is crucial to understanding how race intersects with law, government, gender, and history. (Odd Springs)

RELS 3500. Religion and Ethics — 3 hrs.

Examination of key issues having to do with religion and ethics, including the moral function of religion, religious pluralism, war and peace, freedom and responsibility, religion and politics, religion and gender, and social justice. (Variable)

RELS 3510. Bio-Medical Ethics — 3 hrs.

Application of principles and analytic methods of ethical theory to contemporary issues in medical practice and research. Topics include fundamental concepts of health and disease, life and death; rights and obligations of medical practitioners and their patients; informed consent and confidentiality; abortion and euthanasia; reproductive and transplantation technologies; and health policy and the provision and rationing of health care. (Same as CAP 3173 and PHIL 3510) (Fall and Spring)

RELS 3974/5974. Ethics, Responsible AI, and Business — 3 hrs.

Application of ethical principles and analytic methods to managerial decision-making and contemporary issues in business, including examination of the role and the impact of AI on ethically managing employees and business processes/practices. Apply AI-Ethics in practical scenarios at a workplace. Specific topics will vary in accordance with current events. Prerequisite(s): MGMT 3100 or 3 hours in Philosophy (PHIL XXXX) or 3 hours in Religious Studies (RELS XXXX); junior standing. [Same as MGMT 3974/5974 and PHIL 3974/5974] (Fall and Spring)

RELS 4186/5186. Studies in Religion — 3 hrs.

Topics listed in Schedule of Classes. Prerequisite(s): junior standing. (Fall and Spring)

RELS 4230/5230. Religion in America — 3 hrs.

Investigation of religious movements and beliefs from colonial times to present, with attention to religion and the U.S. Constitution. Prerequisite(s): junior standing. (Same as HIST 4250/5250) (Odd Springs)

RELS 4490. Professional Development Seminar — 3 hrs.

Through reflection, integration, and professional discernment, majors in the study of religion will bring their work in the major to critical integration, clarifying what they have done and linking their achievements with life goals. Prerequisite(s): junior standing or consent of the instructor. (Even Falls)

RELS 4600. Internship in Religion — 1-3 hrs.

Experiential learning combined with skills and knowledge learned in the Study of Religion major. Prerequisite(s): 12 hours in RELS courses; junior standing. (Fall and Spring)

RTNL: Recreation, Tourism and Nonprofit Leadership

Courses

RTNL 2020. Leadership in Recreation, Tourism and Nonprofit Leadership — 3 hrs.

Theories, principles, and practices of recreation, tourism and nonprofit leadership; techniques and methods of working with individuals and groups. (Variable)

RTNL 2110. Introduction to RTNL: Programs, Services and Facilities — 3 hrs.

Introduction to recreation, tourism and nonprofit leadership includes historical and philosophical foundations of the parks and recreation field, demand for and organization of different resources and services, and career and professional opportunities. (Fall)

RTNL 2120. Foundations of Tourism — 3 hrs.

Investigation of many roles travel and tourism play in contemporary society. Overview of the travel and tourism industry, examination of definitions of travel/tourism, and exploration of the history and development of tourism. (Fall)

RTNL 2130. Foundations of the Nonprofit Sector — 3 hrs.

Overview of the nonprofit sector including history, philosophy, mission, management, activities, and trends. Special emphases on the affiliate agencies of the Nonprofit Leadership Alliance. Students earning a "C" or better simultaneously earn a certificate from the Iowa Nonprofit Resource Center. (Fall)

RTNL 2140. Foundations of Outdoor Recreation — 3 hrs.

Overview of development, implementation, and evaluation of outdoor recreation programs. Examination of benefits and challenges of outdoor recreation, with focus on outdoor leadership competencies. (Spring)

RTNL 2150. Foundations of Youth Work — 3 hrs.

A survey and discussion of the practices associated with youth development from a historical and philosophical standpoint. An introduction of the various contexts and methods associated with youth development. (Spring)

RTNL 2160. Inclusive Recreation: Pathways to Participation — 3 hrs.

This course provides practical knowledge and skills to understand the characteristics, needs, and abilities of individuals with common disabilities across cultures. Students will learn person-centered modification techniques to enhance participation in recreational activities. RTNL students will understand how to modify activities, ensuring full engagement and benefit for all participants regardless of their abilities. (Spring)

RTNL 2210. Nonprofit Leadership Practicum, Level I — 3 hrs.

Professional development forum for experiential education and practical application in recreation, tourism and community services. Activities and programming designed for students seeking a Certified Nonprofit Professional (CNP) credential, as part of the Nonprofit Leadership Alliance program. May be repeated for maximum of 6 hours. Prerequisite(s): consent of instructor. (Fall and Spring)

RTNL 3110. Management and Human Resources in Recreation, Tourism and Nonprofit Leadership — 3 hrs.

An examination of the foundations associated with recreation, tourism and nonprofit leadership management and human resources, including marketing, legal aspects, fiscal responsibilities, and risk management.

Course Descriptions

Students will be introduced to technological innovations associated with marketing and promoting recreation, tourism and nonprofit leadership management and human resources. (Fall)

RTNL 3120. Programming for Recreation, Tourism and Nonprofit Leadership — 3 hrs.

Introduction to methods and procedures for planning, budgeting, implementing, and evaluating recreation, tourism and community service programs. (Spring)

RTNL 3121. Philosophical Foundations of Recreation, Tourism and Nonprofit Leadership — 3 hrs.

Examination of historical and philosophical foundations of recreation, tourism and nonprofit leadership, including leisure and play theory, leisure behavior and societal issues, leisure and the environment, and application of theories and behavioral concepts required to understand and manage services, activities, and environments. (Variable)

RTNL 3130. Marketing in Recreation, Tourism and Nonprofit Leadership — 3 hrs.

Core concepts of marketing in recreation, tourism and community services including promotion, management, planning, environment, research, consumer behavior, and market segmentation. Demand, supply and community based assets will be examined with a focus on marketing in Iowa and beyond. (Fall and Spring)

RTNL 3280. Readings in Recreation, Tourism and Nonprofit Leadership — 1-3 hrs.

Individual reading and literature review in recreation, tourism and nonprofit leaderships. Credit to be determined at time of registration based on student's proposal. Prerequisite(s): junior standing; consent of instructor. (Fall, Spring, Summer)

RTNL 3337. Human Resource Development for Recreation, Tourism and Nonprofit Leadership — 3 hrs.

Recruitment, hiring, management, performance evaluation, supervision and termination of staff, volunteers and board members. Emphasis on nonprofit and government personnel practices and procedures. (Variable)

RTNL 3338. Planning Strategies in Nonprofit and Youth Agencies — 3 hrs.

Examination and evaluation of various planning models used in nonprofit and youth agencies to meet the needs of participants. Emphasis on matching developmental needs to planning strategies and models. Prerequisite(s): junior standing or consent of instructor. (Variable)

RTNL 3340. Prevention & Intervention Programs in Youth Work — 3 hrs.

An exploration and discussion of the design, implementation and evaluation associated with prevention and intervention programs for youth in a variety of contexts. An introduction of the various types of programs that may aid in supporting youth during their developmental years. (Fall)

RTNL 3360. Playful Learning and Project-Based Experiences: Techniques for Ed and Recreational Environments — 3 hrs.

This course examines educational principles and their connection with project-based learning (PBL) across all educational levels. Students will learn to apply Froebel's concepts-such as play, creativity, and nature-in various settings while using PBL principles like critical thinking and collaboration. The focus is on creating meaningful, real-world learning experiences. (Summer)

RTNL 3774. Conferences, Expositions and Conventions in Tourism — 3 hrs.

Exploration of the field of conferences, expositions, and conventions and their niche in the tourism industry. Study of organizational logistics, program development, economic impact, meeting technology, legal issues, employment opportunities, and topics of current interest related to the field. Prerequisite(s): RTNL 2770 or consent of instructor. (Variable)

RTNL 3777/5777. Special Events Management — 3 hrs.

Planning and management of special events including research, coordination, marketing, and evaluation. Theories and practices relevant to successful event planning for host community residents and tourists. Prerequisite(s): junior standing. (Odd Springs)

RTNL 3778/5778. Community Based Tourism — 3 hrs.

Promotes student competencies that will enable them to assist small communities in tourism development through an organized planning process. Prerequisite(s): junior standing. (Even Springs)

RTNL 4210/5210. Nonprofit Leadership Practicum, Level II — 3 hrs.

Leadership development forum embracing experiential education and practical application for activities in recreation, tourism and nonprofit leadership. Activities and programming designed for students seeking a Certified Nonprofit Professional (CNP) credential, as part of the Nonprofit Leadership Alliance program. May be repeated for maximum of 6 hours. Prerequisite(s): junior standing; consent of instructor. (Fall and Spring)

RTNL 4290/5290. Recreation, Tourism and Nonprofit Leadership Field Experience — 1-12 hrs.

Supervised observation and leadership experience in recreation, tourism and nonprofit leadership. May be repeated with consent of department. Offered on credit/no credit basis only. Prerequisite(s): junior standing. (Fall, Spring, Summer)

RTNL 4310/5310. Areas and Facilities in Recreation, Tourism and Nonprofit Leadership — 3 hrs.

An introduction to the principles and procedures for planning, designing, managing, and evaluating recreation, tourism, park, and community service settings, areas and facilities. Prerequisite(s): junior standing. (Fall)

RTNL 4320. Financial Resource Management in Recreation, Tourism and Nonprofit Leadership — 3 hrs.

Theory and practice of budget development, fundraising, financial control, and grant seeking in programs within recreation, tourism and nonprofit leadership Prerequisite(s): junior standing. (Fall and Spring)

RTNL 4330/5330. Research and Evaluation in Recreation, Tourism and Nonprofit Leadership — 3 hrs.

Introduction to research, evaluation, needs assessment concepts, procedures, and analyses in recreation, tourism and nonprofit leadership. Prerequisite(s): junior standing. (Spring)

RTNL 4340. Seminar in Recreation, Tourism and Nonprofit Leadership — 3 hrs.

Prepares students for internship and future employment in recreation, tourism and nonprofit leadership organizations. Focus on development of professional documentation (portfolio, resume, etc.), skills, and internship placement. Prerequisite(s): senior standing; consent of instructor. (Fall and Spring)

RTNL 4510. Internship in Recreation, Tourism and Nonprofit Leadership — 1-12 hrs.

Comprehensive practical experience in recreation, tourism and nonprofit leadership. RTNL majors must register for 9 hours. Offered on credit/no credit basis only. Prerequisite(s): senior standing; consent of Internship Coordinator. Corequisite(s): for Leisure, Youth and Human Services majors only: RTNL 4520. (Spring and Summer)

RTNL 4520. Senior Project in Recreation, Tourism and Nonprofit Leadership — 3 hrs.

Programming, resource, or research project to be completed during internship. Written report and oral presentation required after the completion of internship. Prerequisite(s): senior standing; consent of Internship Coordinator. Corequisite(s): RTNL 4510. (Spring and Summer)

RTNL 4552/5552. Outdoor Education and Leadership — 3 hrs.

Principles and practices of outdoor education and interpretation for teaching in schools, communities, nature centers, camps and parks. Focus on application in environmental education/adventure settings. Field trip(s) required. Prerequisite(s): junior standing. (Spring)

RTNL 4553/5553. Principles and Practice of Adventure Programming — 3 hrs.

This course introduces students to the leadership, planning, and facilitation of adventure-based recreation programs in outdoor settings. Students develop technical competence, risk management skills, group leadership strategies, and best practices for leading activities such as canoeing, backpacking, climbing, and orienteering. Emphasis is placed on environmental ethics, trip preparation, participant comfort and safety, and effective decision-making in dynamic outdoor environments. Graduate students are expected to demonstrate advanced leadership, reflection, and applied programming abilities. Prerequisite(s): junior standing. (Fall)

RTNL 4554/5554. Managing Recreation Impacts on the Natural Environment — 3 hrs.

Basic concepts and techniques used in planning, managing, and sustaining natural settings for human activities and experiences to ensure that negative impacts are minimized and opportunities for recreation are enhanced and sustainable. Psycho-social concepts of how parks and green spaces can have a positive effect on human health and well-being if properly designed and managed will also be explored. Prerequisite(s): junior standing. (Fall)

RTNL 4556/5556. Outdoor Recreation History Ethics and Emerging Trends — 3 hrs.

Explore how outdoor recreation has shaped--and been shaped by-- American culture, values, and landscapes. This course traces the historical roots of outdoor recreation in the U.S., including global influences and major wilderness philosophies, while examining current trends, challenges, and innovations in the field. Topics include public land management, evolving outdoor ethics, and the role of recreation in identity, stewardship, and access. Students gain both historical perspective and contemporary insight into the past, present, and future of outdoor leadership and programming. Prerequisite(s): junior standing. (Variable)

RTNL 4557. Field Experience in Adventure Facilitation — 1-3 hrs.

Field experience in adventure facilitation. Outdoor Adventure Coordinators will manage trip planning, logistics, and promotion while developing leadership, risk management, group dynamics, and outdoor education skills. Out-of-class fieldwork and meetings required. Instructor consent needed. May be repeated with departmental approval. Credit/no credit only. Prerequisite(s): RTNL 2140;

RTNL 4552/5552; junior standing; instructor consent. (Fall, Spring, Summer)

RTNL 4621/5621. Camp Staff Development — 2-8 hrs.

Staff development and program planning principles, methods, and procedures used in the development of camp services. Lecture and lab. Offered on credit/no credit basis only. May be repeated for maximum of 8 hours. Prerequisite(s): junior standing. (Spring)

RTNL 4623/5623. Field Experience in Camp Counseling — 1-12 hrs.

Supervised counseling experience in an organized camp. May be repeated with consent of department. Offered on credit/no credit basis only. Prerequisite(s): junior standing. (Fall, Spring, Summer)

RTNL 4625/5625. Camp Management Systems — 1-12 hrs.

Actual administration of a camp program. Includes personnel supervision, program implementation, and evaluation of camp system. Lecture and lab. May be repeated with consent of department. Offered on credit/no credit basis only. Prerequisite(s): junior standing. (Fall, Spring, Summer)

RTNL 4776/5776. Eco, Adventure and Sport Tourism — 3 hrs.

Study of special tourism such as eco, adventure and sport tourism. Dynamics of responsible tourist travel that conserves natural environments and sustains the well-being of local people. Definitions, objectives, and profiles of programs involved in eco, adventure, and sport tourism. Field trips required. Prerequisite(s): junior standing. (Odd Falls)

RTNL 4779/5779. Community Planning Workshop — 3-6 hrs.

Project-based community planning and research course. Provides applied research and communication skills to function creatively and competently in professional settings. Design and execution of planning projects that address recreation and tourism issues. May be repeated for maximum of 6 hours. Prerequisite(s): junior standing. (Even Falls)

RTNL 6200. Historical and Philosophical Foundations of Recreation, Tourism and Nonprofit Leadership — 3 hrs.

Historical and philosophical perspective for understanding leisure, leisure behavior, and professional practices in recreation, tourism and nonprofit leadership. (Variable)

RTNL 6201. Social Policy and Issues in Recreation, Tourism and Nonprofit Leadership — 3 hrs.

Examination and analysis of current trends, issues, and social policy confronting practitioners in voluntary/not-for-profit, public, and commercial recreation, tourism and nonprofit leadership agencies. (Variable)

RTNL 6202. Social Psychology of Leisure — 3 hrs.

Exploration of socio-psychological dimensions of leisure as they affect recreation, tourism and nonprofit leadership practitioners and agencies, focusing on theories from sociology, psychology, and social psychology. (Spring)

RTNL 6203. Philanthropy and Nonprofit Development: An Overview — 3 hrs.

Introductory course to the Philanthropy and Nonprofit Development program designed to give broad coverage for professionals and an overview of studies in philanthropy and nonprofit development. Prerequisite(s): admission into the Philanthropy and Nonprofit Development graduate program or consent of instructor. (Variable)

RTNL 6285. Readings — 1-6 hrs.

May be repeated for credit. (Fall, Spring, Summer)

Course Descriptions

RTNL 6290. Research and Program Evaluation in Recreation Administration — 3 hrs.

This course explores quantitative, qualitative, and mixed-method research designs and procedures related to recreation Administration. Emphasis is placed on applying these methods to real-world settings, including program evaluation. Graduate students will compare and assess various quantitative and qualitative research approaches to determine the most appropriate methodology for investigating a selected topic, with particular attention to both assessment strategies and program evaluation techniques. (Spring)

RTNL 6295. Internship — 1-12 hrs.

Practical experience in recreation, tourism and nonprofit leadership with community agencies. May be repeated with consent of student's advisor. Prerequisite(s): consent of graduate committee. (Fall, Spring, Summer)

RTNL 6402. Strategic Program Management — 3 hrs.

Examination of concepts and theories of program management in recreation, tourism and nonprofit leadership, focusing on analysis of specific programming strategies as they relate to community organization theory using a systems approach. (Fall)

RTNL 6404. Marketing the Youth/Human Service Agency — 3 hrs.

Marketing strategies in implementing the exchange relationship between nonprofit organizations and their constituents. (Variable)

RTNL 6406. Fundraising and Grant Seeking for Nonprofit Agencies — 3 hrs.

Comprehensive study of various funding sources and the methodology of nonprofit organizations to secure resources. (Fall)

RTNL 6408. Financial Decision Making for Youth/Human Service Agencies — 3 hrs.

Financial function of the nonprofit agency incorporating technical materials applicable to the decision-making role of the agency. (Variable)

RTNL 6410. Evaluation, Research and Accountability — 3 hrs.

Survey of advanced nonprofit organization research methods. Research in the area selected by student. Preparation and presentation of research proposal or major paper. Prerequisite(s): admission into the Philanthropy and Nonprofit Development graduate program or consent of instructor. (Variable)

RTNL 6412. Management and Ethics in Recreation Administration — 3 hrs.

This course explores management and administrative issues in Recreation, Tourism and Nonprofit agencies, including topics such as planning, supervision, communication, and ethical considerations in professional practice. (Variable)

RTNL 6414. Models for Intervention With Youth — 3 hrs.

Develops understanding of the various models of intervention utilized by professionals who work with youth in youth-serving agencies. (Variable)

RTNL 6416. Youth Development in Nonprofit Organizations — 3 hrs.

Examination of concepts and theories of youth development, as related to the design of programs and services for positive role development in nonprofit youth organizations. (Variable)

RTNL 6418. Personnel Management and Supervision in Youth/Human Services — 3 hrs.

Elements, processes, and dynamics of personnel management and supervision as it is applied to youth/human services organizations, with an emphasis on nonprofit agencies. (Variable)

RTNL 6419. Psychology, Law, and Philanthropy — 2 hrs.

Students will learn about the psychology underlying giving including topics such as altruism and persuasion. Legal and ethical issues will be covered as they relate to philanthropy, including regulation/governance, tax law, and standards for professional conduct. Prerequisite(s): admission into the Philanthropy and Nonprofit Development graduate program. (Even Springs)

RTNL 6420. Critical Thinking in Philanthropic and Nonprofit Issues — 2 hrs.

Provides a forum for students to explore the latest trends in giving and nonprofit management as framework for analyzing the trends and issues in the field of philanthropy and nonprofit development is provided. A guide for critical thinking and asking the right questions is outlined giving students the tools to identify, analyze and summarize current trends and issues of the nonprofit sector. Prerequisite(s): admission into the Philanthropy and Nonprofit Development graduate program or consent of instructor. (Variable)

RTNL 6422. Applied Research Methods — 2 hrs.

This course is designed to provide a framework for writing a research paper/applied project. Specifically, the literature review is outlined, identifying the purpose, steps, and guidelines important to the process of writing a research paper/identifying implementing a project. Skills including performing literature searches, questionnaire development, data analysis, and interpretations and report writing will be taught. (Variable)

SCI ED: Science Education Courses

SCI ED 1100. Inquiry into Earth and Space Science — 3 hrs.

Activity-based, inquiry-oriented introduction to fundamental concepts and processes in meteorology, astronomy, and geology. Course instruction is entirely lab based. (Fall and Spring)

SCI ED 1200. Inquiry into Life Science — 3 hrs.

Activity-based, inquiry-oriented introduction to fundamental concepts and processes in life science that includes ecology, evolution, cell biology, and human body systems. Course instruction is entirely lab based. (Fall and Spring)

SCI ED 1300. Inquiry into Physical Science — 3 hrs.

Activity-based, inquiry-oriented introduction to fundamental concepts and processes in physics and chemistry that includes energy, force and motion, waves, sound, light, and nature of matter. Course instruction is entirely lab based. (Fall and Spring)

SCI ED 2310. Investigating Physical Science Phenomena — 2 hrs.

Introduction to physical science concepts and models of effective teaching related to elementary school physical science through active investigation using available curricular resources. Course instruction is entirely lab based. Prerequisite(s): SCI ED 1300. (Even Falls)

SCI ED 3300/5300. Orientation to Science Teaching — 4 hrs.

Introduction to inquiry science teaching including instructional planning and strategies, assessment, and classroom management. Highlights issues and trends in science teaching. Discussion, 4 periods.

Prerequisite(s): a major or minor in a science area; junior standing. (Spring)

SCI ED 3500/5500. Techniques for Science Teachers — 1-3 hrs.
Topics selected to assist science teachers in improving their teaching. These may include teaching or assessment strategies, laboratory techniques, specific science concepts, or examples of new curricula. Topic listed in Schedule of Classes. Application to major requires advisor approval. May be repeated up to 7 hours. Prerequisite(s): junior standing; consent of instructor. (Variable)

SCI ED 4198. Independent Study.
(Variable)

SCI ED 4800/5800. Methods for Teaching Secondary Science or MTSS — 3 hrs.

Teaching approaches, instructional and assessment strategies, curricular and laboratory materials, national state science education standards, and issues in secondary science. Field experiences in secondary school science classrooms. Discussion, 3 periods. Prerequisite(s): SCI ED 3300/5300; junior standing. (Fall)

SCI ED 6299. Research.

Prerequisite(s): consent of department. (Fall, Spring, Summer)

SCI ED 6400. Special Problems in Science Education — 1-3 hrs.
Problems selected according to needs of students. May be repeated for maximum of 6 credit hours. (Variable)

SCI ED 6500. Research Methods in Science Education — 4 hrs.
Introduction to qualitative, quantitative, and mixed methods research used in science education. Emphasis on and critical analysis of primary literature. Application of literature review, research design, data analysis and writing styles to graduate projects. (Variable)

SCI ED 6600. Contemporary Science Curricula — 3 hrs.
Analysis and evaluation of science curricula with attention to Grades K-12 national and state initiatives and standards and a focus on adapting and implementing in a classroom. Seminar format, 3 hours/week. (Variable)

SCI ED 6700. The History, Philosophy, and Nature of Science — 3 hrs.

Examination of the nature of science, major philosophical and historical developments of science, and their implications to the science classroom. Seminar format, 3 hours/week. (Variable)

SCI ED 6800. Teaching-Learning Models in Science Education — 3 hrs.

Study of learning theories from behaviorism to constructivism and how these theories are translated into science teaching practice through various teaching models. Seminar format, 3 hours/week. (Variable)

SCI ED 6900. Trends and Issues in Science Education — 3 hrs.
Major trends and issues in science education, focusing primarily from the 1950s to the present. Seminar format, 3 hours/week. (Variable)

SLS: School Library Studies Courses

SLS 4114/5114. Ethics and Foundations of School Librarianship — 3 hrs.

Survey of the roles of the Teacher Librarian pertaining to functions of the school library; ethical and legal issues; national and state professional guidelines and standards; strategies for collaborating with other teachers and paraprofessionals; flexible, open and equitable library access; and selection tools and evaluation criteria to develop

a quality collection. Prerequisite(s): junior standing; consent of instructor. (Variable)

SLS 4115/5115. Organization of Information — 3 hrs.

Introduction to the theory and practice of information organization and retrieval in the context of school libraries. Explores the principles, core concepts, best practices, and trends of cataloging and classification as well as the key elements of performing copy cataloging. Emphasis is placed on the tools to develop, curate, organize, and manage a collection designed to meet the diverse curricular and personal needs of the learning community. The key focus of the course is supporting the user's ability to access information efficiently and effectively with an emphasis on equity of access. Prerequisite(s): junior standing. (Variable)

SLS 4132/5132. Library Resources for Children — 3 hrs.

A study of the literature and resources created for children served by elementary school libraries. Centers on the process of evaluation in order to meet children's developmental, educational, cultural, social, linguistic and recreational needs. Includes strategies for supporting students' reading motivation and reading comprehension with emphasis placed on methods to foster leisure reading and model personal enjoyment of reading, based on familiarity with selection tools and current trends in the literature for youth. Also explores best practices for supporting intellectual freedom and responding to challenges to library materials. Prerequisite(s): junior standing. (Variable)

SLS 4134/5134. Library Resources for Young Adults — 3 hrs.

A study of the literature and resources created for young adults in relation to their characteristics, needs, interests and abilities. Emphasis on selection to meet the developmental, educational, cultural, and recreational needs of secondary students. This includes strategies for reading promotion and for creating a welcoming and inclusive library environment. Prerequisite(s): junior standing. (Variable)

SLS 6223. School Library Curriculum — 3 hrs.

Study of K-12 school library curriculum development and assessment, national standards and strategies to plan and deliver accessible instruction in children's and young adult literature, digital and information literacies, and emerging technologies. Includes question negotiation for the type of information needed, search strategies to locate relevant sources, critical evaluation of source credibility and point of view, and ethical information use including copyright, attribution, and verification of accuracy. (Variable)

SLS 6225. Leadership in the School Library Program — 3 hrs.

Prepares teacher librarians to plan, develop, implement, evaluate and advocate for school library programs, resources, and services in fulfillment of the mission of the library program within the school and district. Emphasis on making effective use of data and other forms of evidence to evaluate and inform decisions about library policies, resources, and services as part of advocacy for students and the library. Includes the development of policies and procedures to support ethical use of information, intellectual freedom, selection and reconsideration of library materials, copyright, and the privacy of users. (Variable)

SLS 6230. Technologies for Libraries — 3 hrs.

Emphasis on technologies for school libraries, including the design of an engaging and user-centered school library website that promotes local and remote access to the school library program for various audiences. Includes curation of emerging technologies for library instruction, for students' use, and for improving access to information and ideas through the school library. Students will evaluate electronic resources for content, quality, and ease of use. (Variable)

Course Descriptions

SLS 6289. Seminar — 2-3 hrs.

Critical assessment of the elements of school library services such as Inquiry Learning at the building and system levels. May be repeated up to six hours with permission of the Division. (Variable)

SLS 6290. Practicum in Elementary School Libraries — 3 hrs.

Experience in the function of elementary school libraries including effective planning, teaching, assessment, and collaboration across the areas of children's literature, digital and information literacies, emerging technologies, inquiry based learning, and the integration of National School Library Standards. Special consideration is given to learner development, diversity, and differences. Prerequisite(s): SLS 6223 or written consent of instructor. (Variable)

SLS 6291. Practicum in Secondary School Libraries — 3 hrs.

Experience in the function of secondary school libraries including effective planning, teaching, assessment, and collaboration across the areas of young adult literature, digital and information literacies, emerging technologies, inquiry based learning, and the integration of National School Library Standards. Special consideration is given to learner development, diversity, and differences. Prerequisite(s): SLS 6223. (Variable)

SLS 6295. Research in Library and Information Science — 3 hrs.

Survey of data, basic research methodologies and critical evaluation of school library research studies to inform library decision making. Development of a substantial written report documenting research of school libraries. (Variable)

SOC SCI: Social Science

Courses

SOC SCI 1020. Women, Men, and Society — 3 hrs.

Examination of key issues of gender. Attention to variety of topics including ethical issues and gender roles, gender-role stereotyping, male and female roles, sexuality, gender roles in non-western and minority cultures, and gender roles in United States institutions (e.g., in the nuclear family, religion, and the work place). (Fall and Spring)

SOC SCI 1041. Social Welfare: A World View — 3 hrs.

Comparative study of social welfare (social insurance, public welfare, charity and philanthropy, social services, and mutual aid) in the United States, and selected nations from five regions of the world as defined by the International Congress of Schools of Social Work (African, Asian, European, Latin American, and North American regions). (Fall and Spring)

SOC SCI 1045. American Racial and Ethnic Minorities — 3 hrs.

This course will be a survey of cultural American minorities, with attention to minority groups in Iowa. It will involve a multi-disciplinary approach with particular emphasis on geographic origins, linguistic traditions and current modes of economic subsistence. Introduction to folkways and mores of each group will be covered. (Fall and Spring)

SOC SCI 2020. Social Sciences Statistics — 3 hrs.

This course provides an introduction to a variety of statistical methods used in quantitative data analysis particularly in the social sciences. These statistical methods are used in quantitative data analysis, levels of measurement, frequency distribution, graphic representations, measures of average and dispersion, cross-tabulations and measures of association, probability and hypothesis testing, bivariate analyses, statistical inference using single and multiple samples and analysis of variance. General topics include research methodologies and statistical tests, including measures of central tendency and variability, Z-

scores, Hypothesis testing, T-tests, ANOVA, Chi-square, correlation, Bivariate regression and Confidence intervals. (Fall and Spring)

SOC SCI 2300. Analyzing Ethics, Personal Decision-Making, and Social Responsibility — 3 hrs.

In this course we learn and then apply a framework for the ethical decision-making we face in our everyday lives. Ethical decision-making is influenced by various factors, including our own personal sense of responsibility to ourselves, our family, our workplace, and the community at large as a global citizen. In order to develop the intellectual skills needed for ethical decision making in our personal and social lives, one must first achieve greater awareness of self. A process of ethical reasoning will be applied to a variety of personal and social issues. Topics may include cheating, school vouchers, parenting practices, opioid epidemic, climate change, same-sex marriage, food laws (e.g., GMO, chemicals, recalls, etc.), and others. (Variable)

SOC SCI 4090. CSBS International Experience: (topic) — 1-4 hrs.

This course is designed to facilitate international experiences for UNI students. The overall goal is to engage students with global cultures and ideas through a variety of academic lenses. Topics will vary according to student interest. This course can encompass different experiences aimed at meeting student needs for international engagement. It has variable credit hours to facilitate flexibility in the duration of the international experience. It can be taken by any UNI student and may be repeated on different topics. Projects must be approved before the international experience takes place. Prerequisite(s): consent of instructor. (Variable)

SOC SCI 6297. Practicum.

(Variable)

SOC SCI 6299. Research.

Prerequisite(s): consent of department. (Variable)

SOC: Sociology

Courses

SOC 1000. Introduction to Sociology — 3 hrs.

Why do we do the things we do? Why is our society the way it is? Sociology teaches students to understand human behavior in an increasingly complex and dynamic social world. Students analyze how and why people act, think, and feel the ways they do. Identity, relationships, institutions, social structures, and the sociological perspective are topics covered. (Fall and Spring)

SOC 1060. Social Problems — 3 hrs.

Social problems teaches students to analyze a variety of contemporary issues facing groups of people. Students will examine the causes, consequences, and potential solutions to the problems. Topics include topics like poverty, drugs, sex trafficking, discrimination, and mental illness. (Fall and Spring)

SOC 1070. Introduction to Human Rights — 3 hrs.

In recent years, "human rights" has become among the most powerful ways of thinking about and fighting for a more just world. This course provides an introduction to the interdisciplinary study of human rights as a concept, a set of laws and institutions, and as a set of political and cultural practices with a particular focus on the sociological study of human rights. The course will begin with a study of the foundations of human rights that seeks to answer questions such as "What are human rights?" and "How or why do we have these rights?" Students will investigate the practice of human rights and the political structures that enable us to address human rights violations around the globe with an emphasis on the relationship between the individual and society.

Finally, this course will allow students to consider the most salient, and often controversial, contemporary human rights challenges we face today, here in the U.S. and abroad. (Spring)

SOC 2000. The Sociological Career — 3 hrs.

The focus of this course is to help students prepare for a career using their sociology degree. To do this, we will cover issues related to maximizing time as a student on the UNI campus, as well as developing tools to help students pursue their own professional interests. This should encourage students to discover ways of becoming both a life-long learner and a successful professional in the career of their choice. (Fall)

SOC 2010. Research Methods — 3 hrs.

Introduction to basic research methods used in social research. Conceptualization and operationalization of research problems. Examination of various research designs used to collect data. Introduction to sampling, instrumentation, data processing, data analysis, and report production. Priority to Sociology and Criminology majors and minors. (Fall and Spring)

SOC 2025. Community Counts: Understanding Data in Community — 3 hrs.

This course provides an introduction to how information about people and the communities in which they live, are collected, stored, analyzed, and visualized. Students will develop marketable skills related to telling stories with data in both effective and responsible ways. (Variable)

SOC 2030. Sociology of Families — 3 hrs.

This course is designed to give students a basic introduction to the sociology of families. We will explore topics such as families in historical perspective, mate selection, cohabitation, marriage, parenthood, families and work, divorce, and family diversity. Students should leave the course with a basic understanding of the concepts, principles, and methods used to study family experiences from a sociological perspective. Prerequisite(s): SOC 1000 or SOC 1060. (Variable)

SOC 2040. Social Movements — 3 hrs.

Social movements occur when people break from their ordinary, everyday lives and try to make broad social change. In this survey course we will examine the social, cultural, and political forces that that launch social movements, form the trajectory of movements, and shape counter-movements. We will look at historical and current cases, looking at how social movements are formed, and what makes them successful or unsuccessful. (Variable)

SOC 2075. The Self in Social Context — 3 hrs.

Analysis of how people's thoughts, feelings, actions, and identities are influenced by social processes, interactions, and structures. Special attention to how people acquire, construct, and negotiate identities and how they are influenced by social realities of race, class, gender, and sexual orientation in these processes. (Variable)

SOC 3025. Childhood in Social Context — 3 hrs.

An examination of the social lives of children and childhood. Includes analysis of childhood in historical and cultural context, children's cultures, children's use of space and place, children's experiences in various social institutions, and social issues related to childhood. Explores sociological theories of childhood and the empirical research on childhood and adolescence. (Variable)

SOC 3033. Sociology of Families and Work — 3 hrs.

Our course is designed to give you an overview of the complex interplay between families and work. We will examine the historical development of family-work relationships as well as relevant

contemporary issues. Our topics will include division of labor, work-family balance, and the impact of social and economic policies on families and work. As part of this, we will consider solutions to contemporary work-family issues in light of preparing you for work-family balance in your own life. (Variable)

SOC 3035/5035. Social Gerontology — 3 hrs.

This course explores the social aspects of aging - how do older adults affect society and how does society affect older adults. We will do this by reviewing research on such topics as the demography of aging, aging in historical perspective, social support later in life, living arrangements, work and retirement, health and health care, and caregiving. Prerequisite(s): SOC 1000 or SOC 1060; junior standing. (Variable)

SOC 3037. Race, Ethnicity and Social Justice — 3 hrs.

The nature, origin, and consequences of racism and ethnicity-based inequality. Examines contemporary issues of racism and how people seek change and social justice. (Variable)

SOC 3045/5045. Social Inequality — 3 hrs.

The nature, origins, and reproduction of social inequalities. Examines how people secure resources and create change. Covers work, families, healthcare, criminal justice, and other areas of social life. Prerequisite(s): junior standing. (Variable)

SOC 3055. Navigating Work Life in Social Context — 3 hrs.

This course explores the relationship between work--paid and unpaid--and society. Through a combination of theoretical frameworks and empirical studies, the course will address how work shapes and is shaped by social structures, cultural norms, access to leisure, and individual identities. Students will analyze contemporary work-related issues, workplace dynamics, and worker experiences. They will develop skills to navigate contemporary work issues. (Variable)

SOC 3060/5060. Sociology of Culture — 3 hrs.

This class illustrates how the economy and personal taste can be connected, so that we feel like we must prefer some cultural forms over others. Students will learn how to find meaning in a variety of cultural forms through exploration and critical analysis. Topics include conspicuous consumption, leisure, subcultures, and celebrity culture. Prerequisite(s): SOC 1000 or SOC 1060; junior standing. (Variable)

SOC 3070/5070. Ideas about Social Life — 3 hrs.

An overview of classical and contemporary social theory. Prerequisite(s): junior standing. (Spring)

SOC 3080/5080. Immigration and Transnationalism — 3 hrs.

Comparative multi-disciplinary perspective on international migration and immigrant settlement strategies, with a focus on Western Europe and the United States. Topics cover the main theoretical and contemporary debates within the field of international migration. Prerequisite(s): SOC 1000 or SOC 1060 or ANTH 1002; junior standing. [Same as ANTH 3080/5080] (Variable)

SOC 3086/5086. Medical Sociology — 3 hrs.

Medical sociology is a broad field of study that uses sociological theories and methods to investigate the social causes and consequences of health and illness across the life course. This class examines: the social determinants of physical and mental health, disease, and mortality; health-seeking behaviors; doctor-patient interactions; health care providers; complementary and alternative medicine; health care systems domestically and globally; health care policy; and ethics. Prerequisite(s): junior standing. (Variable)

Course Descriptions

SOC 3087/5087. Society and Mental Illness — 3 hrs.

Mental illness is an individual and social experience. In this class, we use sociological theories and methods to examine how definitions of mental illness changed over time, place, and cultural context. We investigate the social patterning of mental illness by race and ethnicity, social class, sex, and age, and how mental illness tends to cluster among those with the fewest resources. We consider the roles of stress, trauma, discrimination, and systems of social support. We critically analyze individual and social barriers to treatment, such as stigma, legal problems, and mental health public policy in the U.S. and abroad. Throughout the course we learn how sociologists work with other social scientists and medical professionals identifying the social causes and consequences of mental illness for individuals and society. Prerequisite(s): junior standing. (Variable)

SOC 3100/5100. Sociology of Education: Schooling, Society, & Inequality — 3 hrs.

This course explores the role of education in shaping and reflecting broader social structures, with a focus on how schooling contributes to both social mobility and social reproduction. Drawing on classical and contemporary sociological theories and research, students will examine the historical development of education systems in the United States and globally, paying particular attention to the ways race, class, gender, and geography shape educational opportunities and outcomes. Topics include segregation, desegregation, and resegregation, the hidden curriculum, tracking and standardized testing, the rise of school choice and charter movements, and the political debates surrounding public education. Through critical analysis of research, state and federal policy, and lived experiences, students will investigate how education systems reinforce or challenge inequality--and consider possibilities for equity-oriented reform. Prerequisite(s): junior standing. (Variable)

SOC 3179. Cooperative Education — 1-6 hrs.

Experiential learning in cooperation with the Cooperative Education office. Prerequisite(s): 12 hours in sociology including SOC 2010; junior standing; consent of instructor and department head and Cooperative Education office. (Fall, Spring, Summer)

SOC 3370/5370. Topics in Sociology: (Topic) — 3 hrs.

Topics courses in sociology focus on a wide variety of issues related to people, communities, and addressing social issues. Topic listed in Schedule of Classes. May be repeated for a maximum of 6 hours. Prerequisite(s): junior standing. (Variable)

SOC 3375/5375. Social Sleuthing: Solving Problems with Social Science: (Topic) — 3 hrs.

This course walks students through how to make the world a better place through the lens of a particular issue. We focus on solving a specific social issue in contemporary life. Examining the empirical research, theoretical frameworks, alternative solutions, and ethical considerations, students explore the causes and potential solutions in depth. Students work on the ground to solve problems through service learning. May be repeated for a maximum of 6 hours. Prerequisite(s): junior standing. (Variable)

SOC 4005/5005. Refugees and Humanitarianism — 3 hrs.

Refugees and Humanitarianism is meant to provoke passionate concern for the real-world consequences of refugee aid and measured social scientific thinking about how to respond to the challenges of humanitarian crisis in our "second-best world." This class explores the social and political challenges of living as a refugee and working in humanitarian settings, with a focus on refugee camps and the institutional development of the UN High Commissioner for Refugees. How did refugee camps become the primary means to administer

sanctuary? What are the consequences of this? The class also explores the outcomes refugees face when they are processed through the UN framework of durable solutions as well as alternative approaches to refuge. Topics include causes of flight and exile, the human rights of refugees and internally displaced persons, camp security, health, and environment, as well as contemporary solutions to forced migration. Prerequisite(s): SOC 1000 or SOC 1060; junior standing. (Variable)

SOC 4010/5010. Sociology of Gender — 3 hrs.

Through an intersectional lens, students examine gender as a social, cultural, and institutional construction. Students will explore how gender influences social life within major social institutions such as media, family, the workplace, schools, religion, politics, and popular culture. Focus on US but also comparative. Prerequisite(s): junior standing. (Variable)

SOC 4015/5015. Qualitative Research — 3 hrs.

This course is a first introduction to qualitative methods used in sociology and the social sciences. Students will learn participant observation, interviewing and ethnography skills, as well as analysis of material culture, visual sociology, oral history, analysis of documents and other forms of text, including the ambiguous online ethnography. Prerequisite(s): junior standing. [Same as ANTH 4015/5015] (Variable)

SOC 4016/5016. Violence & Health Across the Life Course — 3 hrs.

This class critically examines violence exposure and accumulation across the life course within families and the impact on physical and mental health. We will use a sociological lens, theories, and research methods to explore how structural inequalities, social factors, and societal norms contribute to patterns of violence and can either promote or deter resilience among survivors and their families. Prerequisite(s): junior standing. (Variable)

SOC 4017/5017. Health Disparities in Social Context — 3 hrs.

This course examines how social factors like class, race, gender, and geography shape health disparities in the United States. Through a sociological lens, we'll explore unequal access to healthcare and how discrimination and economic inequality contribute to poorer physical and mental health outcomes in marginalized communities. Topics include the historical exploitation of vulnerable groups in medical research, environmental racism, gender biases in diagnosis and treatment, and health disparities in institutional settings like prisons. Prerequisite(s): junior standing. (Variable)

SOC 4025/5025. Quantitative Research — 3 hrs.

In this course, students will become more familiar with the steps involved in conducting a quantitative research project, with an emphasis on survey research. The focus is on developing skills related to forming research questions and hypotheses guided by theory and prior research, collecting data, conducting data analysis, and interpreting and presenting results. This will increase understanding of how to conduct quantitative research and present it in a scholarly manner. Prerequisite(s): any of the following research methods courses: SOC 2010, FAM SERV 2030, GEOG 2350, HIST 1010, POLSCI 2010, PSYCH 3002, SW 3185, or equivalent course; SOC SCI 2020 or STAT 1772 or equivalent; junior standing. (Variable)

SOC 4036/5036. Program and Policy Evaluation — 3 hrs.

This course teaches students how to conduct program and policy evaluation. Prerequisite(s): SOC SCI 2020 or STAT 1772 or equivalent; junior standing. (Variable)

SOC 4052/5052. Childhood Inequalities — 3 hrs.

In this course, we use sociological theories and research methods to critically analyze the social and structural forces that influence child development and the social construction of childhood. We pay careful attention to social, cultural, legal, familial, and societal processes that lead to unequal childhoods and perpetuate social problems such as the school-to-prison pipeline, medicalizing child emotions and behaviors, childhood poverty and hunger, child abuse, neglect, and trauma, and the separation and detention of children from their migrant families. Throughout the course, we use a sociological perspective to understand the problems children face and what can be done to reduce childhood inequalities. Prerequisite(s): junior standing. (Fall)

SOC 4053. Social Justice Seminar — 3 hrs.

This course covers how people solve problems and create change. Students will complete an applied term project where they work to address a specific social issue. (Odd Springs)

SOC 4071/5071. Feminist Theories in the Social Sciences — 3 hrs.

Survey of theoretical approaches to study of sex and gender. Classical, structural, neo-Freudian, Marxist feminist, and radical approaches. Topics include work, family, religion, and sexuality. Prerequisite(s): SOC SCI 1020 or SOC 1000 or SOC 1060 or ANTH 1002 or WGS 1040; junior standing. (Variable)

SOC 4198. Independent Study — 1-3 hrs.

May be repeated with department head approval. Prerequisite(s): 12 hours in sociology including SOC 2010; junior standing; consent of instructor and department head. (Variable)

SOC 4485. Sociology Internship — 1-3 hrs.

Experiential learning through internship placement in a sociology-related agency or position. Requires prior consultation with instructor. Intended for sociology majors. May be repeated for maximum three hours. A maximum of three credit hours of SOC 4485 or SOC 4585 may count toward the sociology major. Prerequisite(s): 12 hours in sociology (SOC xxxx); major GPA of 2.80 or higher, junior standing; consent of instructor and department head. (Fall, Spring, Summer)

SOC 4500/5500. Theory and Practice in Applied Settings — 1-6 hrs.

Experiential learning in sociology. Requires prior consultation with instructor. Offered on credit/no credit basis only. Prerequisite(s): 12 hours in sociology including SOC 2010; junior standing; consent of instructor and department head. (Fall, Spring, Summer)

SOC 4501/5501. Research Experience in Sociology — 1-3 hrs.

Research participation and/or independent supervised research. May be repeated for maximum of 6 hours. Prerequisite(s): 12 hours in sociology including SOC 2010; junior standing; consent of instructor and department head. (Fall, Spring, Summer)

SOC 4502/5502. Readings in Sociology — 1-3 hrs.

May be repeated only with consent of department. Prerequisite(s): 9 hours in sociology; junior standing; consent of instructor and department head. (Fall, Spring, Summer)

SOC 4585. Practical Field Experience — 1-3 hrs.

Designed for students currently working in in an sociology-related agency or position. Provides an opportunity for students to apply academic material to their current jobs in sociology or a related field. Intended for sociology majors. May be repeated for maximum three hours. A maximum of three credit hours of SOC 4485 or SOC 4585 may count toward the sociology major. Prerequisite(s): 12 hours in sociology (SOC xxxx); major GPA of 2.80 or higher; junior standing; consent of instructor and department head. (Fall, Spring, Summer)

SOC 6299. Research.

Prerequisite(s): consent of instructor and department head. (Variable)

SOCFOUND: Social Foundations

Courses

SOCFOUND 2015. Perspectives on Education — 3 hrs.

This course explores foundational topics in education from a variety of interdisciplinary perspectives at an introductory level. A major goal of the course is to help students deepen their understanding of and appreciation for education as a fundamental human endeavor that includes, but ultimately transcends formal schooling. (Variable)

SOCFOUND 2119. Social & Cultural Foundations of Education — 3 hrs.

This survey course is an introduction to the cultural, historical, philosophical, and social foundations of education. Students will explore foundational questions about the nature of schooling, curriculum, and teaching through the lens of interpretive, normative, and critical analyses of contemporary education policy and practice. (Fall, Spring, Summer)

SOCFOUND 2134. A Modern History of Education in the United States — 3 hrs.

This course explores the origins and historical development of educational thought and institutions in the United States with a specific focus on shifting societal and political aims of education over time. (Variable)

SOCFOUND 2243. Rethinking the Learning Society: Education and Its Future(s) — 3 hrs.

This course will explore the philosophical underpinnings of education as a concept and practice and consider various educational theories to explore assumptions about teaching, learning, the purpose of education, and the making of the educational subject. (Fall, Spring, Summer)

SOCFOUND 2274. Democracy and Education in the 21st Century — 3 hrs.

This course will explore the complex relationship between education and democracy. This will involve drawing on concepts and theories from the social foundations of education (history, philosophy, and sociology of education) in order to apply interpretive, normative, and critical perspectives on democracy and education, their historical and contemporary relationship, and the possibilities for future entanglements. (Fall and Spring)

SOCFOUND 2334. Education Policy and Politics of Education — 3 hrs.

This course explores the relation between politics and education, and considers the socio-political forces shaping education policies, structures, and practices. (Variable)

SOCFOUND 3219. Critical Perspectives on Technology and Education — 3 hrs.

We live in an increasingly digitally connected, globalized society. As such, "educational technology" has become a common feature of the American school system, both in P-12 schools and higher education. Drawing on the interdisciplinary field of Social Foundations of Education, this course critically analyzes the role of educational technology in a digital world. (Variable)

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SOCFOUND 3319. Education and the Value Gap — 3 hrs.

This course examines education as a practice of world-making that involves ways of configuring politics, communities, cultures, economies, and subjective figures. It provides students with a historical foundation to understand how education has been associated with projects of world-making (settler colonial, capitalist, white supremacist, heteropatriarchal, and ableist) that assume some lives to be more valuable than others. Drawing on theoretical tools to understand the projects of world-making inherent in the very concept and practice of education, students will examine the continuity of world-making projects from the 1530s to our present moment in order to consider the structures and processes that constitute a political economy of life in contemporary schools. The course utilizes a multi-disciplinary approach to study the emergence, rationale, and operations of world-making inherent in education. (Variable)

SOCFOUND 3334. Education, Power, and Change — 3 hrs.

This course explores the relation between education, power dynamics, and processes of societal transformation. Students will critically examine how power operates across intersecting domains and consider the potential of education as a catalyst for change. (Variable)

SOCFOUND 3419. Special Topics in Cultural Studies of Education — 3 hrs.

This course employs the interdisciplinary lens of cultural studies to explore specific topics in such fields as popular culture, political economy, social identities, or globalization as educational issues and problems. The course will work to build contexts around specific topics, connect them to the practices of teaching and schooling, and encourage students to make connections to their own educational experiences. (Variable)

SOCFOUND 3434. Social Movements and Education — 3 hrs.

This course examines the intersection of social movements and education, exploring how contemporary and historical grassroots movements have shaped and continue to inform the concept and practice of education. (Variable)

SOCFOUND 3519. Teacher Leadership & Educational Change — 3 hrs.

This course is designed to provide future educators with a comprehensive understanding of teacher leadership discourse and practice. Students will delve into the historical evolution of teacher leadership and its role within educational systems. They will critically analyze the various discourses surrounding teacher leadership, explore how these narratives shape perceptions of educators and their professional identities, and develop a commitment to maintaining and enhancing the professionalism of educators in a rapidly evolving educational landscape. (Fall, Spring, Summer)

SOCFOUND 4200/5200. The Ethics of Education in the Age of Technological Innovation — 3 hrs.

The emergence of artificial intelligence (AI) raises questions that cut to the heart of educational matters. As AI becomes increasingly embedded in our digital landscape and in the ensemble of educational technologies utilized in and around school settings, it is vitally important for educators to bring critical, normative perspectives to bear on the relationship between education and digital technologies. Drawing on theoretical perspectives from the philosophical foundations of education, this course explores the ethical and philosophical entanglements associated with artificial intelligence in education. Prerequisite(s): junior standing. (Spring)

SOCFOUND 4234/5234. Philosophy of Education — 3 hrs.

This course will survey various approaches and theories of educational philosophy. This will entail questioning common sense assumptions

about education, schooling, knowledge, teaching and learning.

Through a careful reading of foundational and contemporary texts, students will consider a number of critical issues related to education broadly and the establishment of schooling more specifically

Prerequisite(s): junior standing. (Variable)

SOCFOUND 6299. Research.

Prerequisite(s): consent of department. (Variable)

SOCSCIED: Social Science Education

Courses

SOCSCIED 2190. Introduction to Teaching Social Studies — 1 hr.

Acquaints students with basic secondary social studies instructional methods. Introduces fundamentals of lesson planning, including using standards, benchmarks, and curricula as well as varied active learning and classroom management strategies. Students prepare for seeking employment by beginning to write teaching philosophies and building professional portfolios. Prerequisite(s) or corequisite(s): sophomore standing; consent of Social Science Education Coordinator. (Fall and Spring)

SOCSCIED 4190. Methods of Teaching Social Studies — 3 hrs.

Basic teaching methods class designed for future social studies teachers to understand effective instructional techniques and strategies. Emphasis will be placed on lesson plan development, effective instruction, and perspectives of teaching in changing environments. Examination and evaluation of current curricular materials, curriculum development, and appropriate assessment strategies. Ordinarily taken the semester immediately preceding student teaching. Prerequisite(s): SOCSCIED 2190; consent of instructor. (Fall and Spring)

SPAN: Spanish

Courses

SPAN 1001. Elementary Spanish I — 3 hrs.

For beginners. Not recommended for students who have had two or more years of Spanish in high school or the equivalent. (Fall, Spring, Summer)

SPAN 1002. Elementary Spanish II — 3 hrs.

Continuation of SPAN 1001. Not recommended for students who have had three or more years of Spanish in high school or the equivalent. Prerequisite(s): SPAN 1001 or equivalent. (Fall, Spring, Summer)

SPAN 1003. Accelerated Elementary Spanish — 5 hrs.

Recommended for students who have had one year of Spanish in high school or the equivalent. Not recommended for students who have had two or more years of Spanish in high school. (Variable)

SPAN 2001. Intermediate Spanish I — 3 hrs.

Thorough review of essential Spanish grammar; enlarges vocabulary and augments the skills of listening, reading, writing, speaking, and cultural awareness. Prerequisite(s): SPAN 1002 or SPAN 1003 or equivalent. (Fall and Spring)

SPAN 2002. Intermediate Spanish II — 3 hrs.

Development of communication skills, culturally, orally, and in written form through selected readings, discussions, and exercises. Prerequisite(s): SPAN 2001 or equivalent. (Fall and Spring)

SPAN 2053. Spanish for Special Purposes: _____ — 3 hrs.

Grammatical review and specialized vocabulary for practical professional situations; develops listening, reading, writing, and

speaking skills; and provides a vehicle for cultural awareness.

Prerequisite(s): SPAN 2001 or equivalent. (Fall and Spring)

SPAN 3000. Teaching Spanish in the Elementary School — 3 hrs.

Foreign language teaching methodology for K-8, language development, instructional strategies for the elementary level, elementary foreign language classroom management and design for instruction. Field experience and class sessions. Prerequisite(s): SPAN 3001 or SPAN 3050/5050 or SPAN 3006 or equivalent. Prerequisite(s) or corequisite(s): SPAN 2002 and consent of instructor. (Variable)

SPAN 3001. Advanced Writing — 3 hrs.

Analysis and practice in Spanish grammar and usage through writing and reading a variety of texts with attention to vocabulary enhancement and different communication strategies. Prerequisite(s): SPAN 2002 or equivalent. (Fall and Spring)

SPAN 3002/5002. Advanced Spanish for Special Purposes: _____ — 3 hrs.

Enhance speaking, writing, and cultural skills for particular professional or occupational situations. Prerequisite(s): SPAN 2053 or SPAN 2002 or equivalent; junior standing. (Variable)

SPAN 3003. Advanced Conversation and Reading — 3 hrs.

Further development of oral fluency. Conversation on current issues. Extensive vocabulary enhancement through readings and multimedia materials. Prerequisite(s): SPAN 2002 or equivalent. (Variable)

SPAN 3004. Introduction to Hispanic Literature — 3 hrs.

Selected major works of representative Hispanic authors. Application of language skills to literary analysis and introduction to critical theories. Recommended for non-teaching majors. Prerequisite(s): required Spanish language proficiency or equivalent. (Fall and Spring)

SPAN 3006. Spanish for Heritage Speakers — 3 hrs.

Reading and writing-intensive Spanish course for heritage speakers of Spanish, including linguistic, literary and cultural content. Prerequisite(s): Students must hold an interview with a faculty member to ascertain their status as heritage speakers. (Variable)

SPAN 3007. Introduction to Translation — 3 hrs.

Basic considerations regarding theoretical and applied translation and role of contrastive grammar in translation. Prerequisite(s): SPAN 3001 or SPAN 3006 or SPAN 3050/5050 or equivalent. (Fall and Spring)

SPAN 3008. Introduction to Spanish Linguistics — 3 hrs.

Survey of the basic concepts of modern linguistics, as illustrated through Spanish phonology, morphology, syntax, and semantics. Prerequisite(s): SPAN 3001 or SPAN 3006 or SPAN 3050/5050 or equivalent. (Fall and Spring)

SPAN 3012. Survey of Spanish American Literature — 3 hrs.

Overview of Spanish American literature through works of representative authors of different periods and genres. Prerequisite(s): SPAN 3004 or equivalent. (Spring)

SPAN 3016. Translation for Spanish Heritage Speakers — 3 hrs.

Theory and practice of translation between English and Spanish with a focus on advanced vocabulary, cultural and grammatical topics appropriate for heritage speakers of Spanish. Prerequisite(s): SPAN 3006 or equivalent. (Fall and Spring)

SPAN 3018. Survey of Spanish Literature — 3 hrs.

Overview of Spanish literature through works of representative authors of different periods and genres. Prerequisite(s): SPAN 3004 or equivalent. (Fall)

SPAN 3020. Cultures and Civilization of Latin America — 3 hrs.

Cultures of Latin America as shaped by its geography, history, and pre-history; and as revealed in its arts, sports, traditions, languages, and economic, social, and political institutions. Prerequisite(s): SPAN 3001 or SPAN 3006 or SPAN 3050/5050 or equivalent. (Variable)

SPAN 3023. Cultures and Civilization of Spain — 3 hrs.

Spanish cultural heritage as shaped by geography and history, and as revealed in its arts, sports, traditions, languages, and economic, educational, social, and political institutions. Prerequisite(s): SPAN 3001 or SPAN 3006 or SPAN 3050/5050 or equivalent. (Variable)

SPAN 3027. Latinos in the United States — 3 hrs.

Cultural heritage of Latino communities in the United States, as shaped by geography and history; and as revealed through the arts, traditions, languages, and economic, educational, social, and political institutions. Prerequisite(s): SPAN 3001 or SPAN 3006 or SPAN 3050/5050 or equivalent. (Variable)

SPAN 3031. Topics in Spanish American Literature and Culture: _____ — 3 hrs.

Movements, themes, and authors in Spanish narrative, poetry, essay, and drama; based on historical periods and cultural trends. Topic listed in Schedule of Classes. Prerequisite(s): SPAN 3012 or SPAN 3018. (Variable)

SPAN 3035. Topics in Literature and Culture of Spain: _____ — 3 hrs.

Movements, themes, and authors in Spanish narrative, poetry, essay, and drama; based on historical periods and cultural trends. Topic listed in Schedule of Classes. Prerequisite(s): SPAN 3012 or SPAN 3018. (Variable)

SPAN 3050/5050. Written Communication — 3 hrs.

Topics taken from daily life; compositions written and corrected in the classroom; grammar review, and Spanish letter writing. Offered only in conjunction with the Spanish institutes abroad. Prerequisite(s): junior standing. (Fall, Spring, Summer)

SPAN 3051/5051. Advanced Oral Communication — 3 hrs.

Topics of Spanish daily life; emphasis on idioms typical of that linguistic community. Offered only in conjunction with the Spanish institutes abroad. Prerequisite(s): junior standing. (Fall, Spring, Summer)

SPAN 3052/5052. Contemporary Hispanic Culture — 3-5 hrs.

Contemporary Hispanic culture as it reflects and relates to its history and pre-history and current environment; emphasis on literature, architecture, painting, sculpture, and folk music. Offered only in conjunction with the Spanish institutes abroad. May be repeated for maximum of 5 hours. Prerequisite(s): junior standing. (Fall, Spring, Summer)

SPAN 4041/5041. Hispanic Cultures: (Topic) — 3 hrs.

Development of language, cultural and critical skills through Spanish language media (e.g., print, radio, television, film, and computer-based communications). May be repeated on different topics. Prerequisite(s): SPAN 3020 or SPAN 3023 or SPAN 3027 or SPAN 3052/5052 or equivalent; junior standing. (Variable)

SPAN 4043/5043. Pronunciation and Oral Proficiency — 3 hrs.

Practice in pronunciation with focus on oral proficiency. Prerequisite(s): SPAN 3008 or equivalent; junior standing. (Variable)

SPAN 4045/5045. Translation — 3 hrs.

Journalistic and technical translation using varied textual materials (public media, scholarly, and professional texts), from English

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to Spanish and Spanish to English. May be repeated once.

Prerequisite(s): SPAN 3007; SPAN 3016 or equivalent; junior standing. (Variable)

SPAN 4046/5046. Topics in Language and Culture: _____ — 3 hrs.

Special topics and aspects of the discipline. May be repeated on different topic. Prerequisite(s): SPAN 3020 or SPAN 3023 or SPAN 3027 or SPAN 3052/5052 or equivalent; junior standing. (Variable)

SPAN 4047/5047. Structure of Spanish — 3 hrs.

Study of Spanish syntax using current linguistic theories.

Prerequisite(s): SPAN 3008 or equivalent; junior standing. (Variable)

SPAN 4062/5062. Spanish American Literature: _____ — 3 hrs.

Study of Spanish American literature by genre, period, theme, or author. Topic listed in Schedule of Classes. May be repeated on different topic. Prerequisite(s): SPAN 3004 or equivalent; junior standing. (Variable)

SPAN 4063/5063. Peninsular Literature: _____ — 3 hrs.

Study of Peninsular literature by genre, period, theme, or author. Topic listed in Schedule of Classes. May be repeated on different topic.

Prerequisite(s): SPAN 3004 or equivalent; junior standing. (Variable)

SPAN 4064/5064. Hispanic Literature: _____ — 3 hrs.

Combined study of Peninsular Spanish and Spanish American literature by genre, period, theme, or author. Topic listed in Schedule of Classes. May be repeated on different topic. Prerequisite(s): SPAN 3004 or equivalent; junior standing. (Variable)

SPAN 4066/5066. Topics in Literature and Culture: _____ — 3 hrs.

Perspectives on interrelationship of Spanish and/or Spanish American and/or U.S. Latino/Chicano literature and culture, based on historical periods, movements, themes, genres, and authors. Topic listed in Schedule of Classes. May be repeated on different topic. Prerequisite(s): SPAN 3004 or equivalent; junior standing. (Variable)

SPAN 4091. Practicum in Teaching Spanish — 3 hrs.

Participants acquire knowledge of foreign language methodologies through practical applications, including lesson planning, class observations, materials development, and technology integration. Required for students in second language acquisition and foreign-language teacher education programs. Prerequisite(s): SPAN 3001 or SPAN 3006 or SPAN 3050/5050 or equivalent. Prerequisite(s) or corequisite(s): LANG 4740/5740. (Fall or Spring)

SPAN 6001. Literature and Critical Theory — 2-3 hrs.

Critical theory application to the study of literature of Spanish-speaking peoples, literary genres, and techniques, using intensive readings, lectures, and student reports. Primarily for students planning to take the M.A. comprehensives in Spanish. (Variable)

SPAN 6021. Hispanic Culture and Literature: _____ — 2-3 hrs.

Investigation into Hispanic cultures and civilizations as a product of their history and current environment. May be repeated for credit on different topics. (Variable)

SPAN 6031. Cervantes — 3 hrs.

Intensive study of Don Quijote. (Variable)

SPAN 6035. Golden Age Literature — 2-3 hrs.

Outstanding literary works of the Renaissance and Baroque eras. (Variable)

SPAN 6040. Analysis of Spanish — 2-3 hrs.

Advanced study of current syntactic theories applied to topics relevant to Spanish. Prerequisite(s): SPAN 3008 or consent of instructor. (Variable)

SPAN 6041. Old Spanish — 2-3 hrs.

Literary and linguistic study of selected early works. Prerequisite(s): SPAN 3008 or consent of instructor. (Variable)

SPAN 6045. Translation Techniques — 2-3 hrs.

Contemporary theories and strategies in translation. Prerequisite(s): SPAN 4045/5045 or equivalent translation skills. (Variable)

SPAN 6052. Topics in Language and Culture: _____ — 1-3 hrs.

Study of linguistic, geographic, socioeconomic, historico-political aspects of contemporary Hispanic societies, as reflected in art, folklore, and culture. May be repeated on different topic. (Variable)

SPAN 6060. Spanish American Literature: _____ — 2-3 hrs.

Study of Spanish American literature by genre, period, theme, and/or author. May be repeated on different topic. (Variable)

SPAN 6061. Spanish Literature: _____ — 2-3 hrs.

Study of Spanish literature by period, theme, and/or author. May be repeated on different topic. (Variable)

SPAN 6062. Comparative Hispanic Literatures: _____ — 3 hrs.

Comparative analysis of Spanish and Spanish American literature thematically, structurally, and/or stylistically. (Variable)

SPAN 6289. Seminar: _____ — 2-3 hrs.

Various topics offered in areas of literature, culture, and language. Topic listed in Schedule of Classes. May be repeated on different topic. (Variable)

SPIE: Special and Inclusive Education

Courses

SPIE 2500. Inclusive Music for All Learners — 3 hrs.

Introduction to instructional strategies that can be used to make music classrooms and settings inclusive to all students. Students will learn various developmentally, culturally, and linguistically appropriate instructional strategies that can assist with learning music, including second language acquisition resources and asset-based approaches to teaching. This course covers the law related to learners' rights and teacher responsibilities, as well as Individualized Education Plans (IEPs). (Fall)

SPIE 3140. Interdisciplinary and Intersectional Study of Education for All — 3 hrs.

This course prepares teacher candidates to create and sustain positive and effective learning environments for diverse student populations, enhancing their confidence in working with students from different cultures and dis/Abilities. Through an exploration of intersectionality, participants understand how identity shapes educational experiences. Using interdisciplinary approaches, strategies are developed to foster global and intersectional competence and legal responsibilities to serve all students and their families along their intersections of

identities. Scenario-based learning sharpens skills in creating inclusive classrooms that promote equity, justice, and a sense of responsibility. (Spring)

SPIE 3150. Meeting the Needs of Diverse Learners in Classrooms — 3 hrs.

Introduction to pedagogical, curricular, and social considerations involved in educating diverse learners in the general education classroom. (Fall and Spring)

SPIE 3210. Instruction and Assessment for Deaf or Hard of Hearing Students — 3 hrs.

Exploration of instructional methods and strategies, assessment and evaluation practices when teaching deaf or hard of hearing students. The course will cover the use of appropriate assistive technology, the importance of deaf culture in planning, and differentiation of instructional settings from birth to age 21. Prerequisite(s): CSD 3100. Corequisite(s): SPIE 4200. Prerequisite(s) or corequisite(s): CSD 3200/5200. (Fall)

SPIE 4124/5124. Infant Toddler Curriculum and Early Intervention — 3 hrs.

Methods of implementing appropriate curriculum for and guidance of very young children, including children with diverse needs in natural settings. Interagency collaboration and services to support and coach families of infants and/or toddlers with developmental delays or disabilities. Prerequisite(s): SPIE 3150; EDPSYCH 3109/5109; EDPSYCH 3148; junior standing. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. Prerequisites are waived for students from the Department of Communication Sciences and Disorders. Corequisite(s): SPIE 4191/5191. [Same as ECIE 4124/5124] (Fall and Spring)

SPIE 4141/5141. Including Young Children with Special Needs Into General Education Classrooms — 3 hrs.

Advanced best practices for educating young children with diverse learning needs in the general education classroom. Prerequisite(s): SPIE 3150; junior standing. Registration requires full admission to the Teacher Education Program. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. Corequisite(s): ECIE 4130/5130; ECIE 4192/5192; SPIE 4193/5193 for Early Childhood majors/Early Childhood Special Education minors. (Fall and Spring)

SPIE 4148/5148. Assessment of Young Children and Families with Exceptionalities — 3 hrs.

This course builds on the recommended practices to prepare education professionals to assess young exceptional children aged from birth to eight with diverse learning needs and their families. Students gain knowledge of various approaches to assessment and master skills in administering the assessment and interpreting gathered information to determine eligibility, planning and implementing the intervention, monitoring progress, as well as evaluating the program. The concerns, priorities, and resources of families will be addressed in support of the decision making throughout the assessment process. Prerequisite(s): SPIE 3150; EDPSYCH 2068; EDPSYCH 3109/5109; junior standing. Must have a cumulative and UNI GPA of 2.50 or higher to enroll in this course. Prerequisites are waived for students from the Department of Communication Sciences and Disorders. (Fall and Spring)

SPIE 4150/5150. Introduction to Special Education: Legal, Advocacy, and Assistive Technology Practices and Issues — 3 hrs.

Introductory exploration of foundational issues and practices in special and inclusive education. Includes emphasis on 1) law and legal issues; 2) professional advocacy and related educational issues focused on identification, assessment, intervention, and characteristics;

and 3) universal design and assistive technology for individuals with exceptional learning needs. Prerequisite(s): SPIE 3150; junior standing. Registration requires full admission to the Teacher Education Program. (Fall and Spring)

SPIE 4151/5151. Educational and Post-School Transition Programming for Individuals with Disabilities — 3 hrs.

This course will promote understandings of current initiatives and research related to planning and supporting educational (K-12) and post-school transitions for individuals with disabilities. Prerequisite(s): SPIE 3150; junior standing. Registration requires full admission to the Teacher Education Program. Prerequisite(s) or corequisite(s): SPIE 4150/5150. (Fall and Spring)

SPIE 4152/5152. Career and Vocational Programming for Individuals with Disabilities — 1 hr.

Equips educators with the knowledge, strategies, and resources necessary to effectively guide special education students in their career and vocational development. Educators will learn best practices for fostering workplace readiness, supporting hands-on vocational training, and facilitating job placement and self-advocacy skills. Educators will gain the tools to prepare students for meaningful employment and independence. Prerequisite(s): junior standing; department consent. (Fall, Spring, Summer)

SPIE 4155/5155. Cooperative Occupational Education Programs for Students with Disabilities — 1 hr.

Prepares educators to successfully coordinate and implement cooperative occupational education programs for students with disabilities. Educators will learn strategies for establishing business partnerships, designing work-based learning experiences, and ensuring students receive appropriate job training and support. Prerequisite(s): junior standing; department consent. (Fall, Spring, Summer)

SPIE 4161/5161. Constructions of Behavior and Humanistic Supports — 3 hrs.

Individual behavior management, behavioral change strategies, and classroom management for students with special needs. Prerequisite(s): SPIE 3150; junior standing or consent of department. Registration requires full admission to the Teacher Education Program. Corequisite(s): SPIE 4162/5162; SPIE 4163/5163. (Fall and Spring)

SPIE 4162/5162. Specialized Assessment and Instruction for Students with Disabilities — 3 hrs.

Collection and use of educational data to assess and teach students with diverse learning needs, educational planning and progress monitoring, instructional models, curricular access, mapping, and development. Prerequisite(s): SPIE 3150; junior standing. Registration requires full admission to the Teacher Education Program. Corequisite(s): SPIE 4161/5161; SPIE 4163/5163. (Fall and Spring)

SPIE 4163/5163. Field Experience in Specialized Assessment, Instruction and Management in Special Education (K-8) — 3 hrs.

Supervised foundational field experience practicum addressing specialized assessment, instruction and management in special education. Credit/no credit only. Prerequisite(s): SPIE 3150; junior standing or consent of department. Registration requires full admission to the Teacher Education Program. Corequisite(s): SPIE 4161/5161; SPIE 4162/5162. (Fall and Spring)

SPIE 4171/5171. Creating and Sustaining Positive Inclusive Learning Environments (K-12) — 3 hrs.

Development of professional behaviors characterized by positive personal interactions with others and effective skills for

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interdisciplinary collaboration. Strategies for collaborating with parents, administrators, teachers, and paraprofessional colleagues, as well as community and support services personnel to create and sustain positive inclusive learning environments. Students will engage in problem-solving, learn small group, whole class, and school-wide management competencies required to teach and support students with disabilities (K-12). Prerequisite(s): SPIE 3150; SPIE 4150/5150; SPIE 4161/5161; SPIE 4162/5162; SPIE 4163/5163; junior standing. Registration requires full admission to the Teacher Education Program. Corequisite(s): SPIE 4172/5172 or SPIE 4173/5173; SPIE 4194/5194 or SPIE 4195/5195 or SPIE 4196/5196 or SPIE 4197/5197 (as associated with the SPIE 4172/5172 or SPIE 4173/5173 co-requisite course and teaching focus area). (Fall and Spring)

SPIE 4172/5172. Differentiated & Intensive Methods in Literacy & Mathematics: Elementary Mild/Mod Disabilities (K-8) — 3 hrs.

Differentiated and intensive instructional methods, materials, and assessment for students with mild/moderate disabilities in grades K-8; emphasis in literacy and mathematics instruction and accommodations to address individualized needs; includes collaborative approaches and co-teaching and accessible/assistive technology. Prerequisite(s): SPIE 3150; SPIE 4150/5150; SPIE 4161/5161; SPIE 4162/5162; SPIE 4163/5163; LITED 3115; MATH 1204 or approved elementary mathematics methods course; junior standing. Registration requires full admission to the Teacher Education Program. Corequisite(s): SPIE 4171/5171; SPIE 4194/5194. (Fall and Spring)

SPIE 4173/5173. Instructional Methods for Inclusive Learning (5-12) — 3 hrs.

Instructional methods, materials, and assessment for students with mild/moderate and significant disabilities in grades 5-12; emphasis on creating access to curriculum and supporting students within the inclusive classroom. Prerequisite(s): SPIE 3150; SPIE 4150/5150; SPIE 4161/5161; SPIE 4162/5162; SPIE 4163/5163; LITED 3115 (or approved literacy methods course); MATH 1204 (or approved mathematics methods course); junior standing. Registration requires full admission to the Teacher Education Program. Corequisite(s): SPIE 4171/5171; SPIE 4195/5195 or SPIE 4196/5196 or SPIE 4197/5197. (Spring)

SPIE 4174/5174. Methods and Strategies for Students with Social-Emotional Behavioral and Learning Needs (K-12) — 3 hrs.

This course covers instructional methods, materials, and assessments for students with social-emotional behavioral and learning needs in grades K-12. It addresses a continuum of services, emphasizing creating access to the curriculum and supporting students within the inclusive classroom. Prerequisite(s): junior standing. Corequisite(s): SPIE 4197/5197. (Spring)

SPIE 4180/5180. Interdisciplinary Study of Disability — 3 hrs.

Presents an overview of the meaning and significance of disability in society and culture by viewing this phenomenon through an interdisciplinary framework. Students will investigate multiple perspectives on disability to address intriguing and important questions regarding: civil/human rights, bioethics, law and criminal justice, economics, education, and the role of disability in American/world history, the arts, film, literature, anthropology, and philosophy. Prerequisite(s): junior standing. (Spring)

SPIE 4191/5191. Experience in Special & Inclusive Education: Birth - 3 Years — 1 hr.

Supervised assessment and observation experience in early childhood special and inclusive education. Offered credit/no credit option only. Prerequisite(s): registration requires full admission to the Teacher

Education Program; junior standing. Corequisite(s): EDUC 2301 or SPIE 4124/5124 or ECIE 4124/5124. (Fall and Spring)

SPIE 4193/5193. Experience in Special & Inclusive Educ: ECSE Age 3-6 years — 3 hrs.

Supervised observation, assessment and teaching experience in early childhood special and inclusive education. Offered credit/no credit option only. Prerequisite(s): SPIE 3150; junior standing. Corequisite(s): SPIE 4141/5141. (Fall and Spring)

SPIE 4194/5194. Experience in Special & Inclusive Educ: Prac 2, Instructional Strategist I K-8 — 3 hrs.

Supervised assessment and teaching experience in special and inclusive education. Offered credit/no credit option only. Prerequisite(s): SPIE 3150; junior standing. Registration requires full admission to the Teacher Education Program. Corequisite(s): SPIE 4171/5171; SPIE 4172/5172. Prerequisite(s) or corequisite(s): SPIE 4150/5150; SPIE 4151/5151; SPIE 4161/5161; SPIE 4162/5162; SPIE 4163/5163. (Fall and Spring)

SPIE 4195/5195. Experience in Special & Inclusive Educ: Prac 2, Instructional Strategist I 5-12 — 3 hrs.

Supervised assessment and teaching experience in special and inclusive education. Offered credit/no credit option only. Prerequisite(s): SPIE 3150; junior standing. Registration requires full admission to the Teacher Education Program. Corequisite(s): SPIE 4171/5171; SPIE 4173/5173. Prerequisite(s) or corequisite(s): SPIE 4150/5150; SPIE 4151/5151; SPIE 4161/5161; SPIE 4162/5162; SPIE 4163/5163. (Fall and Spring)

SPIE 4196/5196. Experience in Special & Inclusive Ed: Prac 2, Instr Strategist II Intellectual Disability K-12 — 3 hrs.

Supervised assessment and teaching experience in special and inclusive education. Offered credit/no credit option only. Prerequisite(s): SPIE 3150; junior standing. Registration requires full admission to the Teacher Education Program. Corequisite(s): SPIE 4171/5171; SPIE 4173/5173. Prerequisite(s) or corequisite(s): SPIE 4150/5150; SPIE 4151/5151; SPIE 4161/5161; SPIE 4162/5162; SPIE 4163/5163. (Fall and Spring)

SPIE 4197/5197. Exp in Special & Inclusive Ed: Prac 2, Instr Strat II Behavior Disorders/Learning Disabilities K-12 — 3 hrs.

Supervised assessment and teaching experience in special and inclusive education. Offered credit/no credit option only. Prerequisite(s): SPIE 3150; junior standing. Registration requires full admission to the Teacher Education Program. Corequisite(s): SPIE 4174/5174. Prerequisite(s) or corequisite(s): SPIE 4150/5150; SPIE 4151/5151; SPIE 4161/5161; SPIE 4162/5162; SPIE 4163/5163. (Fall and Spring)

SPIE 4200. Experience in Special and Inclusive Education: Deaf and Hard of Hearing — 1 hr.

This practicum provides opportunities for students to plan, implement, and assess student development of knowledge and skills related to managing learning with students who are deaf and hard of hearing. (Fall and Spring)

SPIE 4201/5201. Experience in Special & Inclusive Environments — 1-3 hrs.

This experience offers students the opportunity to work with children and adolescents of diverse groups, including those with disabilities. Offered credit/no credit option only. Prerequisite(s): junior standing; department consent. (Fall, Spring, Summer)

SPIE 5156. Meeting the Diverse Needs of Learners — 2 hrs.

Using pedagogical, curricular, and social considerations in educating diverse learners in the general education classroom. (Fall, Spring, Summer)

SPIE 6162. Evidence-Based Instruction and Learners with Dis/Abilities — 3 hrs.

Administration, data collection, and analysis of assessment data to make program and instructional decisions in teaching learners with diverse learning needs, monitoring progress, developing instructional models, determining curricular access, and mapping that supports educational goals. (Fall and Spring)

SPIE 6171. Creating, Sustaining, and Evaluating Inclusive Learning Environments (K-12) — 3 hrs.

Graduate students create positive learning environments through personal interactions with others and effective interdisciplinary collaboration. Analysis of collaborative engagements with parents, administrators, teachers, paraprofessional colleagues, community, and support services personnel to create and sustain positive, inclusive learning environments for all learners. Engage in problem-solving and developing recommendations through collaboration in small groups, whole classes, and school-wide management competencies required to teach and support students with disabilities (K-12). (Fall and Spring)

SPIE 6172. Differentiated Methods in Literacy & Mathematics in Special and Inclusive Education — 3 hrs.

Identification and selection of differentiated and intensive instructional methods, materials, and assessment for learners with mild/moderate disabilities in grades K-8; emphasis on literacy and mathematics instruction and accommodations to address individualized needs; includes collaborative approaches and co-teaching and accessible/assistive technology. Prerequisite(s): SPIE 6162. (Fall and Spring)

SPIE 6173. Instructional Methods for Inclusive Learning (K-12) — 3 hrs.

This course focuses on instructional methods, materials, and assessment for students with mild/moderate and significant disabilities in grades K-12; emphasis is on creating, sustaining, and evaluating access to the curriculum and supporting students within the inclusive classroom. Course content addresses the certification needs of Strategist I (Mild/Moderate 5-12) and Strategist II (Intellectual Disabilities K-12) endorsement-seeking students, as well as students pursuing the Graduate Certificates in Instructional Strategist 1 and 2. The parallel field experience is differentiated based on the practitioner's goals and the endorsement requirements for Strategist I (Mild/Moderate 5-12) and Strategist II (Intellectual Disabilities K-12). Prerequisite(s): SPIE 4162/5162 or SPIE 6162. (Fall and Spring)

SPIE 6174. Supporting Students with Social-Emotional Behavioral and Learning Needs — 3 hrs.

This course engages practicing educators in identifying, sustaining, and evaluating instructional methods, materials, and assessments for students with social-emotional behavioral and learning needs in grades K-12. It addresses a continuum of services, emphasizing creating access to the curriculum and supporting students within the inclusive classroom while supporting IEP goals. (Fall and Spring)

SPIE 6240. Collaborative Consultation I: The Relationship — 3 hrs.

Emphasis on the psychological and behavioral considerations involved in successfully forming and maintaining a collaborative consulting relationship. In-depth topics include self-management, personality style and versatility, starting the relationship, and establishing one's role with the group and individual. (Fall)

SPIE 6245. Collaborative Consultation II: The Process — 3 hrs.

Provides in-depth understanding and beginning execution of a systematic model of collaborative consulting including four processes or sets of procedures for carrying out the model. Emphasis on planning, problem clarification and analysis, teaching and teacher strategy, presenting solutions, and dealing with teacher concerns and fears. (Spring)

SPIE 6254. Vocational and Transition Assessment of Individuals with Disabilities — 3 hrs.

Assessment and application of techniques for professionals working with adolescents or adults with disabilities. Designed for those interested in vocational and transition programming for individuals with disabilities. Prerequisite(s): SPIE 4151/5151 or consent of instructor. (Variable)

SPIE 6260. Special Education Law and Policy — 3 hrs.

Provides information and conceptual understanding of legislative, executive, and judicial action affecting special education programs for children and youth with disabilities. (Fall and Spring)

SPIE 6261. Special Education Law & Policy II — 3 hrs.

This course provides advanced information and conceptual understanding of legislative, executive, and judicial action affecting special education programs for children and youth with disabilities. This course is designed for school administrators to build upon their leadership in supervising special education services and programming. Prerequisite(s): instructor consent. (Fall, Spring, Summer)

SPIE 6278. Administration of Special Education — 3 hrs.

Prepares administrators to plan programs for various areas of special education, select and evaluate personnel, provide instructional materials, interpret the program to the community, and be informed concerning legal provisions for special education. (Variable)

SPIE 6280. Mediation and Conflict Resolution — 3 hrs.

This course introduces students to the theory and practice of conflict resolution, with a particular focus on mediation. Students will explore conflict dynamics, develop an understanding of the mediation process, and gain practical experience in resolving disputes. The course includes lectures, case studies, role-playing exercises, and guest speakers to provide a well-rounded learning experience. This course is designed for school administrators to build upon their leadership in supervising special education services and programming. Prerequisite(s): instructor consent. (Fall, Spring, Summer)

SPIE 6285. Readings in Special and Inclusive Education.

Advanced topical independent reading course organized around current topics in special and inclusive education. May be repeated. Prerequisite(s): written consent of instructor. (Variable)

SPIE 6286. Studies in Special and Inclusive Education.

Topical advanced and independent studies course in special and inclusive education. May be repeated. Prerequisite(s): written consent of instructor. (Variable)

SPIE 6289. Seminar — 3 hrs.

Advanced seminar in special and inclusive education topics. May be repeated on different topics for a maximum of 9 hours. (Fall)

SPIE 6290. Practicum — 1-6 hrs.

Requires written consent of department. May be repeated for maximum of 9 hours. (Fall and Spring)

Course Descriptions

SPIE 6293. Qualitative Research in Special and Inclusive Education — 3 hrs.

In-depth methodological understanding of qualitative research and the opportunity to conduct qualitative research projects in special educational settings. Prerequisite(s): MEASRES 6205. (Fall)

SPIE 6295. Single-Subject Research Applications — 3 hrs.

In-depth understanding of single-subject methodology for conducting applied research projects in educational settings. Participation in an applied research project with emphasis on the relationship between applied research and best practices in teaching persons with disabilities. Prerequisite(s) or corequisite(s): MEASRES 6205. (Spring)

SPIE 6299. Research — 2-3 hrs.

May be repeated for maximum of 6 hours. Prerequisite(s): consent of department. (Fall and Spring)

SPIE 7301. Internship in Special and Inclusive Education Administration — 3 hrs.

Advanced supervised field-based experience to future develop administrative skills. Prerequisite(s): consent of instructor. (Spring)

SPIE 7385. Readings in Special and Inclusive Education Leadership — 3 hrs.

Topical individualized advanced readings course in special education leadership topics as determined by instructor and student. May be repeated. Prerequisite(s): written consent of instructor. (Variable)

SPIE 7386. Studies in Special and Inclusive Education — 1-3 hrs.

Offered by department for specialized work. May be repeated. Prerequisite(s): consent of instructor. (Variable)

STAT: Statistics

TO MEET ANY COURSE PREREQUISITE, GRADE OF C- OR HIGHER IS REQUIRED IN THE PREREQUISITE COURSE.

Courses

STAT 1772. Introduction to Statistical Methods — 3 hrs.

Descriptive statistics including correlation and curve fitting. Intuitive treatment of probability and inferential statistics including estimations and hypothesis testing. No credit for students with credit in STAT 1774. Students with credit in STAT 3770 should not enroll in STAT 1772. Prerequisite(s): Satisfactory score on ALEKS exam. (Fall, Spring, Summer)

STAT 1774. Introductory Statistics for Life Sciences — 3 hrs.

Descriptive statistics, basic probability concepts, confidence intervals, hypothesis testing, correlation and regression, elementary concepts of survival analysis. No credit for students with credit in STAT 1772. Prerequisite(s): Satisfactory score on ALEKS exam. (Variable)

STAT 1780. Introduction to Data Science — 3 hrs.

Data acquisition, management, and visualization; selected methodologies of machine learning; applications and model evaluation; implementation in R; ethical issues in data science. Prerequisite(s): Satisfactory score on ALEKS exam. (Spring)

STAT 1782. Data-Based Artificial Intelligence for All — 3 hrs.

Data-based Artificial Intelligence; Predictive Artificial Intelligence; Artificial Neural Networks, and Deep Learning; Generative Artificial Intelligence; Responsible Artificial Intelligence and Ethical Artificial Intelligence; Applications of Predictive and Generative Models in Practice. Prerequisite(s) or corequisite(s): Satisfactory score on ALEKS exam. (Odd Springs)

STAT 3751. Probability and Statistics — 3 hrs.

Descriptive statistics and graphical representations, basic concepts of probability and distributions, random variables, expectations, sampling theory, tests of statistical significance. Specific attention devoted to the use of technology in motivating and explaining concepts and techniques. (Same as MATH 3751) (Variable)

STAT 3752/5752. Introduction to Probability — 3 hrs.

Axioms of probability, sample spaces having equally likely outcomes, conditional probability and independence, random variables, expectation, moment generating functions, jointly distributed random variables, weak law of large numbers, central limit theorem. Prerequisite(s): MATH 1421; junior standing. (Same as MATH 3752/5752) (Fall and Spring)

STAT 3771/5771. Applied Statistical Methods for Research — 3 hrs.

Inference about two or more population variances, multiple comparisons, categorical data analysis, linear and logistic regression, design of experiments, analysis of variance and covariance, repeated measures and random effects. Prerequisite(s): STAT 1774 or STAT 1772 or equivalent; junior standing. (Spring)

STAT 3775/5775. Introduction to Mathematical Statistics — 3 hrs.

Sampling distribution theory, point and interval estimation, Bayesian estimation, statistical hypotheses including likelihood ratio tests and chi-square tests, selected nonparametric methods. Prerequisite(s): MATH 3752/5752; junior standing. Prerequisite(s) or corequisite(s): MATH 2422. (Spring)

STAT 3776/5776. Regression Analysis — 3 hrs.

Regression analysis, analysis of variance, time series methods. Prerequisite(s): STAT 3775/5775; junior standing. (Fall)

STAT 3778/5778. Spatial Data Analysis — 3 hrs.

Analysis and interpretation of spatial point processes, area, geostatistical and spatial interaction data. Applications to geographic data in real estate, biology, environmental, and agricultural sciences using S-Plus software. Prerequisite(s): STAT 1774 or STAT 1772 or SOC SCI 2020; junior standing. (Same as GEOG 3778/5778) (Odd Springs)

STAT 4772/5772. Statistical Computing I — 3 hrs.

Data management, graphical techniques and data analysis, computationally-intensive methods in statistics including Regression, Logistic Regression and Analysis of Variance. Emphasis on the use of statistical software such as SAS, SPSS, S-Plus, and R. Prerequisite(s): STAT 1774 or STAT 1772 or equivalent; junior standing. (Fall)

STAT 4773/5773. Design and Analysis of Experiments — 3 hrs.

Planning and organizing experiments, one-factor experiments, randomized blocks, Latin squares and related designs, factorial designs and fractional factorial designs, response surface methodology, nested and split-plot designs. Prerequisite(s): STAT 3771/5771 or consent of instructor; STAT 1772 or equivalent; junior standing. (Odd Springs)

STAT 4777/5777. Statistical Quality Assurance Methods — 3 hrs.

Exploratory data analysis, Shewhart control charts and their variations, process capability analysis, CUSUM charts, EWMA charts, sampling inspection by attributes and by variables, continuous sampling plans, application of design of experiments in quality engineering. Prerequisite(s): MATH 3752/5752 or consent of instructor; junior standing. (Variable)

STAT 4779/5779. Applied Multivariate Statistical Analysis — 3 hrs.

Multivariate normal distribution, tests of significance with multivariate data, discrimination and classification, clustering, principal components, canonical correlations, use of statistical computer packages. Prerequisite(s): MATH 2500; STAT 3775/5775; junior standing. (Variable)

STAT 4782/5782. Statistical Computing II — 3 hrs.

Computationally-intensive methods in statistics including Multivariate and Categorical analyses. Emphasis on the use of statistical software such as SAS, SPSS, S-Plus, and R. Prerequisite(s): STAT 4772/5772; STAT 1772 or equivalent; junior standing. (Variable)

STAT 4784/5784. Introduction to Machine Learning — 3 hrs.

Models and Algorithms for Classification: k-NN, Decision Trees, Neural Networks, Logistic Regression, Naive Bayes and Bayesian Networks, Support Vector Machines; Clustering: Hierarchical and k-Means, Kohonen Networks, Association Rules and Segmentation, Model Evaluation Techniques; Ensemble Methods: Bagging and Boosting. Prerequisite(s): CS 1510 or STAT 4772/5772; STAT 1772 or equivalent; junior standing; consent of instructor. (Fall and Spring)

STAT 4786/5786. Statistics for Risk Modeling — 3 hrs.

Statistical learning, generalized linear models, time series models, decision trees, principal components. Prerequisite(s): STAT 3775/5775 or consent of instructor; junior standing. (Variable)

STAT 6746. Probabilistic Operations Research — 3 hrs.

Decision making under uncertainty, Markov chains, deterministic and probabilistic dynamic programming, inventory control, production scheduling, supply chain management, portfolio optimizations. Prerequisite(s): MATH 2422; MATH 2500; MATH 3752/5752. (Same as MATH 6746) (Fall and Spring)

STAT 6747. Discrete-Event System Simulation — 3 hrs.

Discrete-event systems simulation theory including input analysis, output analysis; applications of simulation software ARENA to studying performances of systems such as bank services, call centers, material-handling systems, and computer networks. Prerequisite(s): MATH 2422; STAT 1772. (Same as MATH 6747) (Fall and Spring)

STAT 6748. Modeling Industrial Systems Using Queueing Networks — 3 hrs.

Queueing networks, applications to modeling and evaluating industrial systems such as flexible manufacturing systems, pull-type production systems, polling systems in computer networks, handoff schemes in cellular mobile networks; computational package MATLAB. Prerequisite(s): MATH 2422; MATH 2500; MATH 3752/5752. (Same as MATH 6748) (Fall and Spring)

STAT 6772. Advanced Statistical Methods — 3 hrs.

Categorical data analysis, logistic and Poisson regression, forecasting, repeated measures, classification and discriminant analysis, cluster analysis, data mining. Prerequisite(s): STAT 4773/5773. (Variable)

STAT 6779. Topics in Probability and Statistics — 3 hrs.

Topics from correlation and regression analysis, analysis of variance and co-variance, non-parametric methods, order statistics. May be repeated on different topic with consent of instructor. Prerequisite(s): consent of instructor. (Same as MATH 6779) (Variable)

SW: Social Work

Courses

SW 1001. Introduction to Social Work and Social Services — 3 hrs.

This course will introduce prospective social work majors to the field of social work, its history, values, and populations that are served. Students will become familiarized with the various roles, functions, and tasks that generalist social workers perform. Presentations by social work professionals in different fields of practice will supplement classroom lecture, discussion and small group exercises. As part of the course assignments, students will engage in a service learning opportunity. Students are required to volunteer in a social service setting for a minimum of 30 hours throughout the semester. The activity serves as a microcosm into the social work profession; gaining insight into agency/program function with opportunity for direct client interaction. Social Work majors must receive a minimum of a C in this course. (Fall and Spring)

SW 1041. Global Social Work — 3 hrs.

This course orients students to conceptual practice issues regarding social welfare within a global context and across a range of global social issues. Students will use global contextual frameworks to examine the dimensions of social problems (e.g. racial/ethnic discrimination, access to education, poverty, health care, child-well-being, food security, violence, cultural conflicts, colonization, urbanization and modernization, effects of climate change, etc.) in the United States and other countries. Students will utilize these frameworks to assess intervention methods at a variety of practice levels (e.g. working with individuals, families, groups, communities, policies) being used to address social problems in different countries. The course prepares students to use professional knowledge, values, and skills in practice in interdisciplinary collaboration with international populations and communities, whether in work with immigrant/refugee individuals, families, groups and populations in the United States, with international social welfare organizations, or on-site work in other countries. (Fall and Spring)

SW 2045. American Racial and Minoritized Populations — 3 hrs.

Exploration of the construction and function of "race" and "ethnicity" from a historical, political, and socioeconomic perspective focusing on the United States experiment. Students are engaged in a variety of learning experiences both online and in the classroom involving large and small groups. (Fall and Spring)

SW 2091. Practice with Individuals — 3 hrs.

This course is one of three in the social work practice sequence. It provides students with beginning level knowledge, skills, and values for generalist social work practice with individuals. Students are exposed to diversity and difference in practice as they learn how to engage, assess, plan, prepare, implement, evaluate, and terminate. Professionalism is fundamental to this course and is guided by the Social Work Code of Ethics. Social Work majors must receive a minimum of a C in this course. Prerequisite(s) or corequisite(s): SW 1001; or consent of instructor. (Fall and Spring)

SW 3143. Self-Care and Stress Management in Helping Professions — 3 hrs.

This course examines the consequences of trauma experiences, toxic stress for individuals, groups and communities. The course explores traumatic events, toxic stress impact on an individual's physical and mental health and patterned behavior. The course discusses the prevention and intervention of toxic stress and trauma. Last,

Course Descriptions

this course explores individual strategies of self-care and stress management. (Variable)

SW 3175. Child Welfare Policy and Practice — 3 hrs.

Review of development of family and children's services and practice, focusing on current services, programs, and social work practice issues. Examination of policies and legislation, emphasizing how such policies affect family functioning and the delivery of services. (Variable)

SW 3185. Social Work Research — 3 hrs.

Application of research to social work practice including formulation of research questions and hypotheses, strategies of research design, measurement and methods of collecting data, questionnaire construction, data presentation, and report writing. Social Work majors must receive a minimum of a C in this course. Prerequisite(s): SOC SCI 2020 or STAT 1772; junior standing. (Fall and Spring)

SW 3189. Readings in Social Work — 1-3 hrs.

May be repeated only with consent of department. Prerequisite(s): 6 hours in social work; consent of department. (Fall and Spring)

SW 3192. Practice with Groups and Families — 3 hrs.

This is the second of a three-course sequence on generalist social work practice. The course focuses on practice at the Mezzo level with an emphasis on solution focused group work. Social Work majors must receive a minimum of a C in this course. Prerequisite(s): declared Social Work major; PSYCH 1001; SW 2091; minimum Cumulative GPA of 2.50. (Fall and Spring)

SW 4121. Social Work in Mental Health Settings — 3 hrs.

A history of mental health institutions, including deinstitutionalization, is covered in this course. Changing perceptions of mental illness and how those views determine the interventions we use is discussed. (Variable)

SW 4144. Social Policies and Issues — 3 hrs.

Policy development and the consequences of policy for social welfare institutions. Frameworks for policy analysis. Planning, program design, and policy decisions for administration of social services. Social Work majors must receive a minimum of a C in this course. Prerequisite(s): SW 1001; senior standing. (Fall and Spring)

SW 4163. Diversity and Difference — 3 hrs.

Study of interpersonal and social relations of minority groups within the larger American society. Social Work majors must receive a minimum of a C in this course. Prerequisite(s): SOC 1000 or SOC 1060; junior standing. (Fall and Spring)

SW 4164. Human Behavior and the Social Environment — 3 hrs.

Integrates multiple sources of knowledge in the analysis of models of human behavior from a person-environment perspective; attention is paid to structural components in oppression and the importance of difference in shaping life experiences. Social Work majors must receive a minimum of a C in this course. Prerequisite(s): completion of UNIFI Scientific Reasoning requirement. (Fall and Spring)

SW 4171/5171. Addictions Treatment — 3 hrs.

Social, legal, political, psychological, biological, spiritual, and ethical factors related to the use and abuse of alcohol and other drugs, eating disorders, and behavioral addictions such as shopping and gambling. Various intervention models with an emphasis on harm reduction, stages of change, and a strengths perspective. The role of a professional social work in the field of addictions treatment, application of social work ethical principles to guide professional practice, and response to contexts that shape practice. Prerequisite(s): junior standing. (Variable)

SW 4173/5173. Social Services for Older Adults — 3 hrs.

This course will provide an introduction to the various programs and services designed to serve older Americans. Related literature on population demographics and trends, social perceptions of the elderly, and current and projected needs of an increasingly older population will be discussed. Examination of the legislative bases and policies formulated to create administrative structures and programs will be included. Prerequisite(s): junior standing. (Variable)

SW 4193. Models of Social Work Practice — 3 hrs.

Survey of practice approaches with individuals, examination of integrative approaches to practice (common factors, and technical, theoretical, and assimilative integration); and, analysis of the advantages and limitations of using empirically supported treatments. Prerequisite(s): junior standing. (Variable)

SW 4194/5194. Seminar in Social Work — 3 hrs.

In-depth exploration of an advanced topic in social work practice or social welfare policy. May be repeated on different topics. Prerequisite(s): junior standing. (Variable)

SW 4196. Practice with Communities and Organizations — 3 hrs.

This course is designed for students to develop a knowledge base and practice skills fundamental to effect social change within communities and organizations. Students will learn methods of assessing macro systems as well as developing, implementing, and evaluating appropriate intervention strategies to advance human rights and socio-economic and political justice for the society as a whole, especially, for populations at risk. Social Work majors must receive a minimum of a C in this course. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): SW 3192. (Fall and Spring)

SW 4200. Field Instruction — 10-15 hrs.

Field instruction provides a learning experience in a community setting where the student has the opportunity to integrate classroom learning into practice, to develop skills in interpersonal relationships and intervention techniques, and to participate in the role of social worker. The minimum required clock hours are 400 and the class is credit/no credit. Credits are limited to 10-12 for Summer semester field experience. Prerequisite(s): SW 1001; SW 2091; SW 3185; SW 3192; SW 4164; Declared Social Work major; minimum UNI and Cumulative GPA of 2.50; senior standing. (Spring and Summer)

SW 4240. Field Supplement — 1-8 hrs.

A field instruction supplement course that provides a learning experience in a community setting where the student has the opportunity to integrate classroom learning into practice, to develop skills in interpersonal relationships and intervention techniques, and to participate in the role of social worker. A range of 1-8 credits or 40 to 320 hours are required. The course is graded as Credit/No Credit. Prerequisite(s): SW 1001; SW 4164; SW 3185; SW 2091 and SW 3192 with a minimum grade of C in each course; Social Work major; minimum UNI and Cumulative GPA of 2.50; senior standing; accepted into the UNI Social Work program as a Study Abroad student; or consent of instructor. (Fall, Spring, Summer)

SW 6010. Principles and Strategies for Self-Care, Health, and Well-Being — 3 hrs.

This course examines the consequences of trauma experiences, toxic stress for individuals, groups and communities. The course explores traumatic events, toxic stress impact on individual's physical and mental health and patterned behavior. The course also discusses the prevention and intervention of toxic stress and trauma. Last, this course explores individual strategies of self-care and stress management. (Fall, Spring, Summer)

SW 6011. Introduction to Play Therapy — 3 hrs.

This course provides knowledge and skill competencies to facilitate play therapy as a therapeutic intervention for children and families. This course provides students with the philosophical basis for play therapy, including a review of the history of play therapy, how to develop a relationship with a child through an Adlerian theoretical framework, and an introduction to various theoretical applications and play therapy best practices. Students will become familiar with play therapy micro-skills, the purpose and application goals of play therapy, therapeutic stages and themes, ethical issues, cross cultural/diversity implications, basic developmental and neurological implications, treatment planning in play therapy including development of treatment goals and assessment of treatment progress and applications to a variety of populations and therapeutic contexts. (Variable)

SW 6212. Human Behavior and the Social Environment — 3 hrs.

Overview of systemic factors that shape behavior across the life span of the individual with particular attention to diversity and oppressed populations. Examination of person-environment interactions as they relate to generalist social work. Prerequisite(s): admission to graduate program in Social Work or written consent of instructor. (Fall)

SW 6213. Post-Traumatic Growth Across Cultures — 3 hrs.

Emphasis on macro systems - groups, organizations, communities, and societal and global influences - through investigation of various cultural responses to macro-level traumatic events, including war, genocide and natural disasters. Exploration of strengths and resiliency perspectives for coping strategies and creative post-traumatic growth, including the transformative and healing role of the arts, spirituality, advocacy, and conflict resolution. Prerequisite(s): completion of first year of M.S.W. program, or graduation from a Council on Social Work Education accredited undergraduate curriculum. (Variable)

SW 6214. Social Work Practice I — 3 hrs.

Introduces foundation core of the generalist social work practice approach. Students learn about diversity and difference in practice as they apply skills in engaging, assessing, planning, preparing, implementing, evaluating and terminating. Professionalism is fundamental to this course and is guided by the Social Work Code of Ethics. Prerequisite(s): admission to graduate program in Social Work or written consent of instructor. (Fall)

SW 6215. Social Work Practice II — 3 hrs.

Building on SW 6214, students develop mezzo-system knowledge and practice skills in utilizing the strengths perspective and applying solution-focused interventions for working with small groups and families. Prerequisite(s): SW 6214. (Spring)

SW 6216. Social Work Practice with Organizations and Communities — 3 hrs.

Students develop a knowledge base and practice skills fundamental to effect social change within communities and organizations. Students master macro system assessment approaches, then identify and practice methods for developing, implementing, and evaluating intervention strategies to advance human rights as well as socio-economic and political justice. Prerequisite(s): Admission to graduate program in Social Work or consent of instructor. (Fall)

SW 6218. Introduction to Social Work Research — 3 hrs.

Students will: 1) review the literature on a topic of their choice, 2) identify and compare the different social work research methods, both qualitative and quantitative, 3) design an evaluation proposal, including formative, process, outcome and impact components, and 4) select a research design for the evaluation, which includes a methodology appropriate to meet the goals of the evaluation, and including data collection and analysis. Students will demonstrate

the ability to use critical thinking skills in both their review of the literature and evaluation proposal. Prerequisite(s): Admission to graduate program in Social Work or written consent of instructor and completion of a college level course in statistical methods. (Spring and Summer)

SW 6220. Foundation Practicum — 4 hrs.

Field instruction provides a learning experience in a community setting where the student has the opportunity to integrate classroom learning into practice, to develop skills in interpersonal relationships and intervention techniques, and to participate in the role of social worker. The minimum required clock hours are 400 and the course is credit/no credit. Prerequisite(s): Completion of MSW Foundation core coursework or written approval from the MSW Program Director. In Good Academic Standing (minimum 3.0 GPA; No more than 6 credits with a C; No incompletes in required courses). (Spring)

SW 6221. Foundation Practicum Seminar — 4 hrs.

The Foundation Practicum Seminar accompanies SW 6220 Foundation Practicum as it includes a minimum of 12 hours of seminar content integrating and applying knowledge acquired throughout the MSW foundation curriculum to their field practicum. Seminars scheduled throughout the semester provide opportunities to critically reflect upon placement experiences, and to link these experiences with concepts from class and related readings. This graded portion of the field practicum requires, but is not limited to, participation in the field seminars, submission of summaries of learning and completing an agency report. (Spring)

SW 6222. Foundation Practicum I — 2 hrs.

Field instruction provides a learning experience in a community setting where the student has the opportunity to integrate classroom learning into practice, to develop skills in interpersonal relationships and intervention techniques, and to participate in the role of social worker. The minimum required clock hours are 200 and the course is credit/no credit. Prerequisite(s): Completion of MSW Foundation core coursework or written approval from the MSW Program Director. In Good Academic Standing (minimum 3.0 GPA; No more than 6 credits with a C; No incompletes in required courses). (Variable)

SW 6223. Foundation Practicum Seminar I — 2 hrs.

The Foundation Practicum Seminar accompanies SW 6222 Foundation Practicum I as it includes a minimum of 6 hours of seminar content and activities integrating and applying knowledge acquired throughout the MSW foundation curriculum to their field practicum. Seminars scheduled throughout the semester provide opportunities to critically reflect upon placement experiences, and to link these experiences with concepts from class and related readings. This graded portion of the field practicum requires, but is not limited to, participation in the field seminars, submission of summaries of learning and completing an agency report. (Variable)

SW 6224. Foundation Practicum II — 2 hrs.

Field instruction provides a learning experience in a community setting where the student has the opportunity to integrate classroom learning into practice, to develop skills in interpersonal relationships and intervention techniques, and to participate in the role of social worker. The minimum required clock hours are 200 and the course is credit/no credit. Prerequisite(s): SW 6222; SW 6223. In Good Academic Standing (minimum 3.0 GPA; No more than 6 credits with a C; No incompletes in required courses). (Variable)

SW 6225. Foundation Practicum Seminar II — 2 hrs.

The Foundation Practicum Seminar accompanies SW 6224 Foundation Practicum II as it includes a minimum of 6 hours of seminar content and activities integrating and applying knowledge acquired throughout

Course Descriptions

the MSW foundation curriculum to their field practicum. Seminars scheduled throughout the semester provide opportunities to critically reflect upon placement experiences, and to link these experiences with concepts from class and related readings. This graded portion of the field practicum requires, but is not limited to, participation in the field seminars and submission of summaries of learning. (Variable)

SW 6230. Injustice and Oppression — 3 hrs.

Examination of the psychological, social, and economic genesis of the conditions, dynamics, and consequences of social and economic injustice. Social work commitment of advocacy in addressing social and economic injustice and institutionalized oppression. Prerequisite(s): admission to graduate program in Social Work or consent of instructor. (Variable)

SW 6234. Primary and Secondary Trauma — 3 hrs.

This course serves as an introduction to understanding the key concepts of trauma informed systems of care in generalist social work practice. Students will learn to identify and understand the various types of trauma along with the behaviors and responses seen in survivors of trauma, diagnosis of Post-Traumatic Stress Disorder and other trauma reactions, basic neurological and biological effects of trauma, and the relationships between trauma and other mental health disorders. An overview of the central principles and key concepts of trauma informed care along with examples will also be provided, including a review of the concept of secondary (or vicarious) trauma affecting caregivers and professionals. This will involve knowledge and skills related to self-exploration and awareness and self-care. Prerequisite(s): Completion of first year of M.S.W. program, or graduation from a Council on Social Work Education accredited undergraduate curriculum. (Summer)

SW 6235. Systems Redesign and Community Collaboration — 3 hrs.

The purpose of this course is to increase knowledge and skills that students will need as employees, change agents, or consultants of organizations. Students are provided opportunities to increase their knowledge of organizational change to reduce secondary trauma to clients and collaboration between agencies to become more user-friendly to clients with multiple issues. In addition, students learn about their behavior and the behavior of others in the organizational setting and how that may influence clients, staff, and administration, especially those with traumatic histories. Interventions that promote safety and reduce vulnerability of clients and staff are explored and skills to effectively communicate with interdisciplinary teams are reviewed. Agency policies and procedures and advocacy strategies are examined with the goal of reducing secondary trauma. Prerequisite(s): Completion of first year of M.S.W. program, or graduation from a Council on Social Work Education accredited undergraduate curriculum. (Summer)

SW 6236. Diversity & Human Rights — 3 hrs.

This course focuses on issues of diversity, oppression and human rights. It is designed to prepare social work students to be knowledgeable of people's biases based on race, ethnicity, culture, religion, age, sex, sexual orientation, gender identity and expression, social and economic status, political ideology, disability and how these contribute to stigma, discrimination and oppression. Students will also learn about the influence of dominant culture on these diverse and marginalized groups. Prerequisite(s): Admittance to the MSW program, or another graduate program with instructor approval. (Variable)

SW 6244. Advanced Social Work Practice with Families — 3 hrs.

Development of advanced social work practice skills, techniques, and interventions with families, building on the core foundation of generalist social work practice. Special attention is given to culturally-diverse and rural families using a trauma informed approach to practice. Prerequisite(s): completion of first year of M.S.W. program, or graduation from a Council on Social Work Education accredited undergraduate curriculum. (Fall and Spring)

SW 6246. Trauma Informed Practice I — 3 hrs.

Trauma Informed Practice I is the preliminary course in the practice sequence at the specialty level of the Trauma Informed Care Concentration. The practice sequence has three interrelated foci: Violence and Trauma; Mental Health and Recovery; and Health and Wellbeing. This provides a multi-level social work perspective based on best practices and theory that promote healthy individual development as well as environments that support human development. Practice I introduces the sequential model of trauma treatment and recovery, specifically focusing on the first phase regaining a sense of safety, non-toxic self-regulation and self-smoothing and transitioning into the second phase, starting active work upon the trauma. The language of trauma is interpreted as an adaptational coping response to violence. The student becomes an interpreter of the language of what maladaptive behavior is trying to tell us, and how a more humanistic use of biological-psychological-social-cultural/spiritual interventions is synchronous with social work ethics and values. Specific methodologies practiced may include Motivational Interviewing, Seeking Safety, Mindfulness, Creating Sanctuary and Trauma-Focused Cognitive Behavioral Therapy using both individual and group modalities. Prerequisite(s): Completion of first year of M.S.W. program, or graduation from a Council on Social Work Education accredited undergraduate curriculum. (Fall)

SW 6247. Trauma Informed Practice II — 3 hrs.

Trauma Informed Practice II builds on Trauma Informed Practice I and continues coverage of the three interrelated foci: Violence Trauma; Mental Health and Recovery; Health and Wellbeing. Practice II expands the sequential model of trauma treatment and recovery, specifically focusing on the second phase, active work upon the trauma through the development of the trauma narrative and addressing the resulting grief and loss by employing any of a range of psychological techniques, as well as the final stage of fostering integration, an advance to a new post-traumatic life, possibly broadened by the experience of surviving the trauma and all it involved. Strong emphasis is placed on healthy professional development through self-awareness, self-reflection and self-care, including being attuned to the signs and symptoms of secondary traumatic stress and compassion fatigue and developing self-care strategies, techniques and supports. Practice entails further refine of methodologies introduced in Practice I as well as dialectal behavior therapy and collaborative practice strategies with schools, foster families, courts, health, behavioral health and social service agencies as a framework for multi-level practice incorporating individual and group modalities. Prerequisite(s): Completion of first year of M.S.W. program, or graduation from a Council on Social Work Education accredited undergraduate curriculum. (Spring)

SW 6248. Advocacy & Social Justice — 3 hrs.

This course introduces students to the knowledge, skills, and values needed to affect policy in the legislative and administrative arenas. The course explores the role of social workers in policy advocacy and electoral politics through gaining skills in coalition building, organizing, lobbying and testifying and developing strategies for social

justice. Prerequisite(s): Admittance to the MSW program, or another graduate program with instructor approval. (Variable)

SW 6249. DSM: Balancing Strengths and Differential Diagnosis — 3 hrs.

The purpose of this course is to introduce students to prevalent psychiatric disorders using the DSM. Understanding the DSM categories, along with the combination of bio-psycho-social causes for the diagnostic labels, is a vital part of treatment planning and, ultimately, providing effective services. (Fall and Spring)

SW 6262. Program Planning and Design — 3 hrs.

Development of skills to strategically plan, assess and design programs and services in human service organizations. Trauma-informed theoretical contributions, strategic planning, collaboration, systemic assessment, financial literacy, program design and monitoring. Prerequisite(s): completion of first year of M.S.W. program, or graduation from a Council on Social Work Education accredited undergraduate curriculum. (Variable)

SW 6263. Grant Writing, Fund Raising, Contracting, and Marketing — 3 hrs.

Securing funding for human service agencies and programs. Grant writing to private foundations and public agencies, fund-raising from individuals and corporations, planning and implementing comprehensive fund-raising programs, and developing service contracts. Prerequisite(s): completion of first year of M.S.W. program, or graduation from a Council on Social Work Education accredited undergraduate curriculum. (Fall and Spring)

SW 6265. Advanced Social Work Research — 3 hrs.

This course is designed to build on Introduction to Social Work Research (SW 6218). Students apply concepts they learn in this class using real-world examples from their field experiences. Prerequisite(s): Completion of first year of M.S.W. program, or graduation from a Council on Social Work Education accredited undergraduate curriculum. (Fall)

SW 6266. Advanced Practicum — 6 hrs.

Field practicum for Trauma-Informed Specialization coursework. 500 clock hours required in one semester. Practicum established by arrangement with Department of Social Work Field Director. Offered on credit/no credit basis only. Prerequisite(s): Completion of MSW Foundation core coursework or graduate of a Council on Social Work Education accredited undergraduate program. In Good Academic Standing (minimum 3.0 GPA; No more than 6 credits with a C; No incompletes in required courses). (Spring and Summer)

SW 6267. Advanced Practicum Seminar — 4 hrs.

This seminar complements SW 6266 Trauma Informed Practice Practicum. This is a graded portion of field practicum. (Spring and Summer)

SW 6268. Advanced Practicum I — 3 hrs.

First semester of a two-semester practicum for Trauma Informed Specialization coursework. 250 clock hours required; concurrent with classes. Practicum established by arrangement with Department of Social Work Field Director. Offered on credit/no credit basis only. Prerequisite(s): Completion of MSW Foundation core coursework or graduate of a Council on Social Work Education accredited undergraduate program. In Good Academic Standing (minimum 3.0 GPA; No more than 6 credits with a C; No incompletes in required courses). (Fall)

SW 6269. Advanced Practicum Seminar I — 2 hrs.

This seminar complements SW 6268 Trauma Informed Practice Practicum I. This is a graded portion of field practicum. (Fall)

SW 6270. Advanced Practicum II — 3 hrs.

Second semester of a two semester practicum for Trauma Informed Specialization coursework. 250 clock hours required; concurrent with classes. Practicum established by arrangement with Department of Social Work Field Director. Offered on credit/no credit basis only. Prerequisite(s): SW 6268; SW 6269. In Good Academic Standing (minimum 3.0 GPA; No more than 6 credits with a C; No incompletes in required courses). (Spring)

SW 6271. Advanced Practicum Seminar II — 2 hrs.

This seminar complements SW 6270 Trauma Informed Practice Practicum II. This is a graded portion of field practicum. (Spring)

SW 6272. Advanced Social Administration Practicum — 8 hrs.

Field practicum for second year M.S.W. Social Administration concentration students. 500 clock hours required. Practicum established by arrangement with Department of Social Work Field Director. Offered on credit/no credit basis only. (Spring and Summer)

SW 6273. Advanced Social Administration Practicum Seminar — 2 hrs.

This seminar complements SW 6272 Advanced Social Administration Practicum. This is a graded portion of field practicum. (Spring and Summer)

SW 6274. Advanced Social Administration Practicum I — 4 hrs.

Practicum placement for second year M.S.W. Social Administration concentration students, fall semester. 250 clock hours, concurrent with classes. Practicum established by arrangement with Department of Social Work Field Director. Offered on credit/no credit basis only. Prerequisite(s): completion of first year of M.S.W. program, or graduation from a Council on Social Work Education accredited undergraduate curriculum. (Fall)

SW 6275. Advanced Social Administration Practicum I Seminar — 1 hr.

This seminar complements SW 6274 Advanced Social Administration Practicum I. This is a graded portion of field practicum. (Fall)

SW 6276. Advanced Social Administration Practicum II — 4 hrs.

Practicum placement of second year M.S.W. Social Administration concentration students, spring semester or summer. 250 clock hours. Practicum established by arrangement with Department of Social Work Field Director. Offered on credit/no credit basis only. Prerequisite(s): SW 6274; SW 6275. (Spring)

SW 6277. Advanced Social Administration Practicum II Seminar — 1 hr.

This seminar complements SW 6276 Advanced Social Administration Practicum II. This is a graded portion of field practicum. (Spring)

SW 6278. Social Intervention: Policies and Services — 3 hrs.

Analyzes components of past and present social welfare policies, programs, and services in the United States, with consideration of how well they respond to the needs of marginalized and high-risk individuals, families, and communities. Focus on consequences of policies for administration of social services, weighing financial costs against benefits, programmatic alternatives, and various approaches to advocacy and social reform. Prerequisite(s): admission to graduate program in Social Work or written consent of instructor. (Fall)

SW 6285. Readings — 1-6 hrs.

Prerequisite(s): consent of instructor. (Fall and Spring)

Course Descriptions

SW 6299. Research — 1-3 hrs.

May be repeated for maximum of 3 hours. Prerequisite(s): Consent of department. (Spring)

TEACHING: Teaching

Courses

TEACHING 2020. Introduction to Teaching: Exploring Options — 1 hr.

Offered on credit/no credit basis only. This course is intended for students who are thinking about becoming a teacher but need help deciding whether to pursue the teaching program. The course will focus on the roles and responsibilities of schools and teachers, the expectations and requirements of the teaching profession, and current issues in the field. It provides 10 hours of direct and indirect experiences with PK-12 students in area schools to allow for reflection, self-assessment, and informed decision-making regarding entry into the teacher education program and profession of teaching. Students will gain feedback from K12 teachers and their professor. (Fall, Spring, Summer)

TEACHING 3177. Collaborative Partnerships for Educators — 3 hrs.

Students will examine the role of collaboration in creating a favorable learning environment for all students. Emphasis will be on understanding self, students, and educational stakeholders while building skills to create effective partnerships for student learning. Students will develop the awareness of the complexities and ethics involved with accessing, interpreting and using data and resources within a collaborative educational setting. (Fall, Spring, Summer)

TEACHING 3500. Effective Teaching through Differentiation, Technology and Assessment — 3 hrs.

An examination of three important components of quality instruction. Namely, differentiation, technology and assessment. The course will make connections across and within all three topics with the goal of helping students to become more comfortable with using these topics in instructional settings. (Fall and Spring)

TEACHING 4170/5170. Human Relations: Awareness and Application — 3 hrs.

Development of awareness of various societal subgroups, recognizing and dealing with dehumanizing biases, and learning to relate effectively to various groups in order to foster respect for human diversity. Emphasis on self-awareness in human relations issues and how this awareness can be translated into positive relationships with others and integrated into one's professional responsibilities. Prerequisite(s): full admission into teacher education; junior standing. (Fall, Spring, Summer)

TEACHING 5178. Advanced Collaborative Partnerships for Educators — 3 hrs.

Students will examine the role of collaboration in creating a favorable learning environment for all students. Emphasis will be on understanding self, students, and educational stakeholders while building skills to create effective partnerships for student learning. Students will develop the awareness of the complexities and ethics involved with accessing, interpreting and using data and resources within a collaborative educational setting. (Fall, Spring, Summer)

TECH: Technology

Courses

TECH 1008. Basic Manufacturing Processes — 3 hrs.

Materials and properties, fundamentals of metal casting, plastics processing, metal forming, welding, assembly processes, powder metallurgy, and ceramic processing. Lecture and lab. (Fall)

TECH 1010. Fundamentals of Metal Removal — 3 hrs.

Theory of metal machining, cutting-tool technology, turning and related operations, drilling and related operations, milling, grinding and other abrasive processes, other machine tools, nontraditional machining and thermal cutting processes, metrology introduction to CNC machines-advantages applications of CNC machines, CNC parts programming for milling and turning operations along with computer simulation, CNC machine tool controller simulation, and lab activities. Introduction to sustainable machining processes. Lecture Lab. (Spring)

TECH 1011. Software for Graphic Techniques — 3 hrs.

Provides lab-based experiences for learning software skills utilizing the industry standard for graphic communications. Addresses fundamentals of the Adobe Creative Suite for print and multimedia. Provides a foundation for required courses in Graphic Technology. (Fall)

TECH 1024. Engineering Design with CAD — 3 hrs.

Fundamentals of the product design process; 3D modeling, Sketching, development of engineering drawings, geometric constructions, dimensioning, sketching, multi-view projections, section views, threaded fasteners, assembly modeling. (Fall and Spring)

TECH 1037. Introduction to Circuits — 3 hrs.

Introduction to AC circuits, in-depth DC circuits; current and voltage laws, circuit analysis including series and parallel circuits, inductance, capacitance, introductory magnetism; power calculations and electrical measurements, circuit simulation, troubleshooting techniques. (Fall)

TECH 1039. Circuits and Systems — 3 hrs.

AC circuits including j operators, phasors, transformers, reactance, capacitance, impedance, AC resonance, frequency response, passive filters, network theorems and circuit simulation. Lecture and lab. Prerequisite(s): TECH 1037. Prerequisite(s) or corequisite(s): MATH 1140. Automation Engineering Technology majors will be waived from MATH 1140. (Spring)

TECH 1055. Graphic Communications Foundations — 3 hrs.

Concepts and processes used by the communications industry to place images on surfaces including conventional offset, laser techniques, inkjet technology, screen printing and specialized contemporary technologies are presented. Topics include imaging history, finishing techniques and the opportunity to experience actual print projects within a graphics lab. Includes both lecture and lab. (Fall)

TECH 2024. Technical Drawing with GD&T — 3 hrs.

Engineering design process, geometric dimensioning and tolerancing pertaining to ANSI Y14.5M, fasteners, gears, cams, assembly modeling, coordinate measuring, and rapid prototyping. Prerequisite(s): TECH 1024. (Spring)

TECH 2036. Power Technology — 3 hrs.

Introduction to energy and mechanical power systems. Lecture and lab cover traditional and emerging electrical power technologies such as renewable energy applications. (Variable)

TECH 2051. Analog Electronics — 4 hrs.

Understanding and applications for analog electronic systems including: Semiconductor materials, P-N junction, characteristics

of electronic devices: junction diodes, photodiodes, LED, Zener diodes, and their applications, BJT and FET transistors, small-signal amplifiers, oscillators, electronic circuit simulation and troubleshooting. Including amplifier and oscillator circuits using discrete electronic devices, principle of feedback, ICs - SSI, MSI and LSI, operational amplifiers, electronic circuits using OP-AMPs, measurement and simulation techniques, regulated power supplies, industrial applications of ICs, troubleshooting techniques. Lecture and lab. Prerequisite(s): TECH 1037; TECH 1039. Prerequisite(s) or corequisite(s): MATH 1140 or MATH 1150 or MATH 1420. (Fall)

TECH 2053. Digital Electronics — 4 hrs.

Understanding and utilization of Digital Electronic Systems. Number systems and codes, digital arithmetic, Boolean algebra, elementary logic gates, combinational logic circuits, sequential logic circuits, logic circuit design and industrial applications, simulation and troubleshooting. Including: arithmetic circuits, sequential logic circuit analysis and synthesis, counters and registers, shift registers, memory devices, digital and analog interfaces, ADC, DAC, and Multiplexing. Lecture and Lab. Prerequisite(s): TECH 1037; TECH 1039. Prerequisite(s) or corequisite(s): MATH 1140 or MATH 1150 or MATH 1420. (Spring)

TECH 2055. Electrical Power Systems & Machinery — 4 hrs.

Single and polyphase circuits, DC machines, AC single and polyphase synchronous and induction machines, power transformers, introduction to conventional- and renewable-based power systems. Analysis, modeling, simulation, and operation of electrical utility, commercial, and industrial power systems. Voltage-drop calculations, voltage regulation, system protection, faults, and harmonics. Power quality in industrial power systems. Lecture and Lab. Prerequisite(s): TECH 1037; TECH 1039. Prerequisite(s) or corequisite(s): MATH 1140 or MATH 1150 or MATH 1420. (Fall)

TECH 2065. Industrial Robotics — 3 hrs.

Introduction to robots in a manufacturing setting; Robot safety; Calibration of robots; tool definition; tool center point; work coordinate system; Robot programming; structured programming-routines and logic; material handling operations; and Robot simulation software. Lecture and Lab. Prerequisite(s) or corequisite(s): for Technology and Engineering Education majors: sophomore standing or consent of instructor. For all other majors: CS 1510 or CS 1160; sophomore standing. (Fall)

TECH 2070. Digital Pre-Media — 3 hrs.

Using industry standard applications and technology, this course introduces students to the essentials of preparing a file for different mediums including print, web, and electronic media. An in-depth look into electronic file development, digital prepress techniques, variable data implementation, interactive pdf creation, color management and e-publishing. Prerequisite(s): TECH 1055. (Spring)

TECH 2072. Engineering Materials — 3 hrs.

Introductory course of principles and properties of materials, including metals, composites, ceramics, glass, and polymers. Lecture and lab. Prerequisite(s): completion of UNIFI Written Communication requirement; CHEM 1020 or CHEM 1110; MATH 1420 or MATH 1150; PHYSICS 1511 or PHYSICS 1701; sophomore standing. (Spring)

TECH 2114. Making Cool Stuff — 3 hrs.

Application of production concepts and practices within a product development, fabrication and assembly environment. Activities relate to the development of a custom team created product that will be marketed in collaboration with the entities across campus. (Variable)

TECH 2119. Computer Applications in Technology — 3 hrs.

Study of major technology-oriented programming software including spreadsheet applications, technical report writing, database management, and presentation graphics. Applications are introduced as solutions to specific technology problems through programming exercises. (Spring)

TECH 2405. Introduction to Packaging; 3D Design and Package Prototyping — 3 hrs.

Introduces the consumer packaging industries' materials, processes, and technologies. Provides hands-on learning through the creation of 3D designs and the development of a package prototype using the AETM laboratories. (Fall)

TECH 3024/5024. Solid Modeling and Additive Manufacturing for Design — 3 hrs.

Design and development of 3D solid models, part assemblies, generation of detailed drawings, and kinematic analysis of assembly models using a parametric solid modeling software. Concepts of design for additive manufacturing (AM) introduced at the solid modeling stage for subsequent use in group projects. Students work in collaborative group projects for developing a product (parts and assembly), preparing for AM (3D printing/prototyping the product). Lecture and lab. Prerequisite(s): TECH 1024; TECH 2024; junior standing. (Fall)

TECH 3100/5100. Engineering Cost Analysis — 3 hrs.

Principles of economic factors in engineering project evaluation, planning and implementation. Engineering decision analysis, money-time relationships, measures of investment, break-even method, cost-benefit ratio, risk management. Engineering projects analyzed/justified. Prerequisite(s): junior standing. (Variable)

TECH 3102. Living in Our Techno-Social World — 3 hrs.

Exploration of the complex relationships between technology and society. Students discover how social systems affect the nature and use of technology and how the nature and use of technology affect social systems. Prerequisite(s): junior standing. (Same as CAP 3102) (Spring)

TECH 3113. Manufacturing Tooling — 3 hrs.

Principles of cutting tools, jigs, fixtures, progressive dies, and gaging; tool geometry, tool life, cost analysis, ergonomics, and safety in tooling design applications. Lecture and lab. Prerequisite(s): TECH 1008; TECH 1010; TECH 1024; MATH 1150 or MATH 1420; CHEM 1020 or CHEM 1110; PHYSICS 1511 or PHYSICS 1701; junior standing. (Spring)

TECH 3127. Applied Thermodynamics — 3 hrs.

Application of fluid flow and heat transfer concepts including conduction, convection, radiation, Bernoulli's principles, and turbulent flow. Thermodynamic principles are reviewed and applied to heat power cycle systems. Thermal and fluid computational dynamics are covered and applied to physical simulation models. Prerequisite(s): TECH 1024; MATH 1150 or MATH 1420; CHEM 1020 or CHEM 1110; PHYSICS 1511 or PHYSICS 1701; junior standing or consent of instructor. (Spring)

TECH 3129. Linear Control Systems — 3 hrs.

Learning open and closed loop control theory, applications to analogies for modeling and design procedures. Introducing sensors, actuators, PID control, analog controllers, and elementary concepts of dynamic performance and stability. Lecture and lab. Prerequisite(s): TECH 2051; PHYSICS 1511 or PHYSICS 1701; junior standing. (Fall)

Course Descriptions

TECH 3131/5131. Technical Project Management — 3 hrs.

Project management concepts, needs identification, composition and role of project teams, project communication, related project management techniques, practical implementation, and project management software. Prerequisite(s): junior standing. (Fall and Spring)

TECH 3132/5132. Metallurgy and Phase Transformation — 3 hrs.

Advanced principles of metallurgy, properties, microstructural analysis, and heat treatment of metals and alloys used in manufacturing. Transformation kinetics are included. Lecture and lab. Prerequisite(s): CHEM 1020 or CHEM 1110; PHYSICS 1511 or PHYSICS 1701; or consent of instructor; junior standing. (Variable)

TECH 3135/5135. Product Design — 3 hrs.

Applied manufacturing design process: design teams define, plan and document design project. Concept generation and evaluation, engineering and product performance specifications, costing, production process, and product support. Prerequisite(s): TECH 2024; junior standing. (Spring)

TECH 3136. Principles of Metal Casting — 3 hrs.

Intermediate course in melting practices and molding processes in metal casting. Melting practice topics for ferrous and non-ferrous metals include charge selection, process control techniques for premium quality liquid metal production, and microstructural evaluation correlated to mechanical properties. Molding process topics include expendable processes with a concentration on sand processes and investment casting; permanent mold process with a concentration die-type processes; and process control techniques for mold property characterization. Lecture and lab. Prerequisite(s): TECH 2072. (Fall)

TECH 3142. Statistical Quality Control — 3 hrs.

Application of quality control tools/techniques to manufacturing and service environments using statistics, sampling techniques, probability, and control charts. Utilization of quality control concepts and strategies such as Lean and Six Sigma. Calculations and interpretations of process controls and process capabilities for continuous improvement. Prerequisite(s): MATH 1140 or MATH 1150 or MATH 1420 or STAT 1772; junior standing or consent of instructor. (Fall and Spring)

TECH 3143. Managing Operations and Manufacturing Systems — 3 hrs.

Operations management (OM) principals for production of both goods and services through the basic functions of the management process, consisting of planning, organizing and controlling in order to make strategic decisions with the goal of improving operational efficiency. Topics include: forecasting, project management, process and location strategies, plant layout, staffing and balancing, inventory control, material requirements planning and short-term scheduling. Prerequisite(s): MATH 1140 or MATH 1150 or MATH 1420 or STAT 1772; junior standing or consent of instructor. (Fall and Spring)

TECH 3147. Computer Aided Manufacturing — 3 hrs.

Advanced programming for CNC machines, machining parameters, machining centers, turning centers, CAM application programs to create part geometry, tool paths, machining parameters, surface modeling, multi axis machining, and post process NC code. Lecture and computer simulation lab and hands-on lab practice. Prerequisite(s): TECH 1010; TECH 1024; junior standing or consent of instructor. (Odd Springs)

TECH 3148. Machine Design — 3 hrs.

Principles of design for machine elements, failure analysis, static and dynamic loads. Machine elements include power transmission

elements such as fasteners, gears, belts, chains, shafts, keys, couplings, clutches, brakes, springs, bearings. Prerequisite(s): ENGR 2080; ENGR 2180; MATH 1150 or MATH 1420; PHYSICS 1511 or PHYSICS 1701; junior standing or consent of instructor. (Fall)

TECH 3150/5150. Graphic Communications Imaging — 3 hrs.

Explorations of conventional graphic arts imaging technologies and processes including screen printing processes, dye sublimation, and other conventional imaging technologies. Emphasis on technical information and hands-on experiences. Prerequisite(s): TECH 2070; junior standing. (Spring)

TECH 3157/5157. Microcontroller Applications — 3 hrs.

Microcontroller technology applied to real-time industrial problems; survey of industrial computer hardware, networking, and software. Lecture and lab. Prerequisite(s): TECH 2051; TECH 2053; CS 1160 or consent of instructor; junior standing. (Fall)

TECH 3160/5160. Computer-Aided Instrumentation and Interfacing — 3 hrs.

Computer-aided instrumentation and interfacing; real-time industrial data acquisition hardware and software; sensors, signal conditioning; design and debugging of data acquisition systems using software tools. Lecture and lab. Prerequisite(s): TECH 1037; TECH 1039; TECH 2053; MATH 1140 or MATH 1150 or MATH 1420; junior standing. (Spring)

TECH 3164. Programmable Logic Controllers (PLCs) — 3 hrs.

Introduction to PLCs, Basic Modes of Operation Ladder Logic Diagrams, industrial applications, sequencers, bit-wise operations, arithmetic operations, and conditional branching. Lab activities and projects. Prerequisite(s): TECH 1039; sophomore standing. (Spring)

TECH 3169. Digital Imaging — 3 hrs.

Photography fundamentals for digital imaging. Emphasis on developing calibration, creating profiles for digital cameras, imaging technologies, and output devices. Lecture and hands-on capturing and manipulating digital images for cross applications and content management. Prerequisite(s): TECH 2070. (Fall)

TECH 3177. Advanced Manufacturing Processes — 3 hrs.

Engineering analysis of different shaping processes; Non-traditional machining processes, Additive manufacturing, semiconductor manufacturing, IC fabrication and packaging, microfabrication and nanofabrication technologies; Principles and concepts of green/sustainable manufacturing concepts; Fundamentals of production lines for material handling and assembly, application of robotics for manufacturing, introduction to smart manufacturing (Industry 4.0). Prerequisite(s): PHYSICS 1511 or PHYSICS 1701; MATH 1150 or MATH 1420; TECH 1008; TECH 1010; TECH 1024; TECH 2065; junior standing. (Odd Falls)

TECH 3180. Lean and Sustainable Operations — 3 hrs.

Introduction to lean systems and concepts - basic philosophy of reducing waste in areas of production, processing, inventory, transportation, waiting time and scrap generation - to reduce cost and production time and to improve quality and sustainability in the design, production and operations of goods and services. Prerequisite(s): MATH 1150 or MATH 1420 or STAT 1772; junior standing or consent of instructor. (Spring)

TECH 3182/5182. Coordination of Techniques in Career and Technical Programs — 2 hrs.

Planning, organization, development, and teaching of cooperative or multi-occupational programs in career and technical education. Prerequisite(s): junior standing. (Variable)

TECH 3183. Fundamentals of Manufacturing Engineering — 3 hrs.

Application of technical knowledge to solve industrial problems within the functional area of manufacturing engineering. Preparation for examination through the manufacturing Engineering Certification Institute. Prerequisite(s): junior standing or consent of instructor. (Variable)

TECH 3192/5192. Non-Destructive Evaluation of Materials/ Scanning Electron Microscopy — 3 hrs.

Non-destructive evaluation of materials using such techniques as x-ray, gamma ray, liquid penetrant tests, magnetic particle, eddy currents, SEM, etc. Prerequisite(s): TECH 2072 or TECH 3132/5132; junior standing. (Variable)

TECH 3196. Industrial Safety — 3 hrs.

Examination of the directives mandated for General Industry (29 CFR Part 1910) of the Occupational Safety and Health Administration (OSHA). Emphasis on developing and implementing a comprehensive safety and health program. Introductory discussions on understanding environmental regulations are presented. Prerequisite(s): sophomore standing. (Fall and Spring)

TECH 3405. Packaging Design, Structure, and Production — 3 hrs.

Focuses on the consumer packaging industry workflow including the packaging design, structure, proofing, and production. Utilizes online lectures and project-based learning to provide a hands-on classroom and AETM lab experience. Prerequisite(s): TECH 1055; TECH 2405. (Spring)

TECH 4000/5000. Wind Energy Engineering — 3 hrs.

Fundamentals and history of wind power. Operation, control, applications, types of wind turbines. Stand alone, grid connectivity, transmission, economic and management issues regarding the adoption of wind as an energy source. Technical, political and economic implications. Prerequisite(s): junior standing. (Variable)

TECH 4093/5093. Graphic Communications Estimating and Management I — 3 hrs.

Study of traditional and modern project management workflow principles in the traditional print publishing industry and web-to-print publishing. This course also studies the development of marketing strategies for variable data printing and ancillary services. Prerequisite(s): TECH 1055; TECH 2119; junior standing. (Even Falls)

TECH 4103/5103. Electronic Communications — 3 hrs.

Basic communication concepts including propagation, modulation, demodulation, receivers, transmitters, antennas, transmission lines, digital coding, pulse modulation and other digital/data communication techniques. Introduction to fiber-optic and satellite communications. Lecture and lab. Prerequisite(s): TECH 2051; TECH 2053; MATH 1150 or MATH 1420; junior standing. (Fall)

TECH 4104/5104. Applied Digital Signal Processing — 3 hrs.

Introduction to discrete-time signals and systems, digital sampling theory, discrete Fourier transform, Z transform, and FIR/IIR filter design. Projects and labs based on MATLAB and DSP development kit (TMS320C5510) will be performed. Lecture and lab. Prerequisite(s): TECH 2053 or CS 1410; CS 1160 or CS 1130; junior standing. (Spring)

TECH 4110/5110. Manufacturing Process Planning — 3 hrs.

This course deals with the best practices used in industry to design and manufacture successful products. Product cycle in manufacturing, product quality, part design for producibility, part design analysis,

tolerance stacking, process design and development, operation selection, manufacturing process selection, tooling selection, tolerance charting, process parameter selection, cost estimation, economics of process planning. Prerequisite(s): CHEM 1020 or CHEM 1110 ; PHYSICS 1511 or PHYSICS 1701; MATH 1150 or MATH 1420; TECH 1008; TECH 1010; TECH 2024; TECH 2065; TECH 2072; ENGLISH 3772/5772 (undergraduates) or ENGLISH 5772 (graduates); junior standing. (Fall)

TECH 4137. Tooling Practices in Metal Casting — 3 hrs.

Advanced course in the principles of foundry tooling design including selection of pattern materials, rapid prototype development techniques, gating and riser design, and basic core box production techniques. Prerequisite(s): TECH 2072; MATH 1150 or MATH 1420; CHEM 1020 or CHEM 1110; PHYSICS 1511 or PHYSICS 1701; junior standing or consent of instructor. (Spring)

TECH 4155/5155. Finite Element Analysis — 3 hrs.

Fundamental concepts of the finite element method for linear stress and deformation analysis of mechanical components. Development of truss, beam, frame, plane stress, and plane strain elements. Practical modeling techniques and use of general-purpose codes for solving practical stress analysis problems. Prerequisite(s): MATH 1150 or MATH 1420; PHYSICS 1511 or PHYSICS 1701; junior standing. (Variable)

TECH 4161. Digital Graphic Communications — 3 hrs.

Emphasis on contemporary and future issues in the graphic communications industry. Study of the creation and conversion of graphics for cross-media applications for print and the Internet. Creative problem solving and portfolio development. Prerequisite(s): TECH 2070; junior standing. (Odd Springs)

TECH 4162. Hydraulics & Pneumatics — 3 hrs.

Introduction to fluid power, safety precautions, Bernoulli's equation, basic application of hydraulics and pneumatics towards industrial automation. It includes hydraulic pumps, cylinders, valves, motors, fluid logic control and electrical devices used in fluid control. Pneumatic circuits and applications. Applications in automation. Prerequisite(s): MATH 1150 or MATH 1420; PHYSICS 1511 or PHYSICS 1701. (Fall)

TECH 4165/5165. Wireless Communication Networks — 3 hrs.

Topics include wireless transmission fundamentals, protocols and TCP/IP suites, cellular wireless networks, Mobile IP, wireless LAN technologies, IEEE 802.11 and IEEE 802.15 standards, and security issues in wireless networks. Lecture and lab. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): TECH 4103/5103 or CS 2470. (Spring)

TECH 4167/5167. Power Electronics Applications — 3 hrs.

Theory and industrial applications of solid-state electronic devices for control and conversion of electrical power. Fundamentals of power computations. Analysis/design of power converter circuits and components: single and 3-phase rectifiers, DC-DC, AC/AC converters, and inverters. Prerequisite(s): TECH 2051; junior standing. Prerequisite(s) or corequisite(s): TECH 2055. (Spring)

TECH 4184. Digital Imaging II — 3 hrs.

Students will explore digital imaging formats in a lab-based, hands-on environment. Topics include color calibration and printing large format images, as well as workflow and production issues, color pre-press and digital formats appropriate to multiple media. Prerequisite(s): TECH 3169; junior standing. (Even Springs)

Course Descriptions

TECH 4187. Applied Industrial Supervision and Management — 3 hrs.

Application of day-to-day planning, organizing, staffing, leading, and controlling of people, goods and services. Topics include problem solving, leadership, teamwork, coaching and communication, training, safety, ethics, equal opportunity employment, stakeholder engagement, and best practices of supervision and management. Prerequisite(s): junior standing. (Fall and Spring)

TECH 4198. Independent Study. (Variable)

TECH 4225/5225. Integrated Logistics — 3 hrs.

Analysis, design, and issues integrating logistics and supply operations for industrial operations. Includes sourcing decisions, supply systems practices, pricing and revenue management, and quality considerations. Prerequisite(s): junior standing. (Variable)

TECH 6230. Special Topics in Applied Engineering — 3 hrs.

Comprehensive investigation in applied engineering or technical management that addresses an approved current or historical topic. (Problems in applied engineering other than those for theses or in regular curricular offerings.) Culminates with a written document and presentation. May be repeated for up to six credits. Prerequisite(s): Admitted to the MS Technology Program or consent of instructor. (Variable)

TECH 6231. Thermodynamics of Material Processing — 3 hrs.

Application of thermodynamic principles and energy changes associated with processing of metals, ceramics and polymers. Concepts such as mass and energy balances, fundamental laws of thermodynamics, Gibb's free energy, and activity of binary liquid and solid solutions. Prerequisite(s): Admitted to the MS Technology Program/Metal Casting Emphasis OR Instructor Consent. (Variable)

TECH 6235. Material Transformations and Modeling — 3 hrs.

Material transformation topics such as solidification science, micro- and macro- segregation principles, fluid flow of Newtonian and non-Newtonian liquids, and advanced solid state transformations are covered and directly correlated to material modeling techniques. Prerequisite(s): Admitted to the MS Technology Program/Metal Casting Emphasis OR Instructor Consent. (Variable)

TECH 6239. Foundry Management — 3 hrs.

The graduate level course integrates concepts of foundry operations management to understand how casting design, material and energy cost analysis, process operations, and scheduling is critical in determining product costs. Using a complete departmental approach in analyzing foundry operations, each area of the casting process is analyzed to determine their management functionality, operations, and their associated cost to the final casting price. The course is designed to be a project based course, starting with a casting design and developing the initial tooling associated with the design. As part of the final cost analysis, student teams have to identify all functions and operations of each departmental areas such as raw materials for the casting process, inspection equipment, and environmental/safety regulations. Prerequisite(s): Admitted to the MS Technology Program/Metal Casting Emphasis OR Instructor Consent. (Variable)

TECH 6242. Complex Digital System Design — 3 hrs.

Complex digital systems design at the logic gate level. Basic structure, sub programs, packages and libraries of VHDL; combinational/ sequential logic design with VHDL; VHDL simulation and synthesis, FPGA implementation. Projects and labs using Xilinx Spartan-3 FPGA development kit. Prerequisite(s): Admitted to the MS Technology Program OR Instructor Consent. (Odd Springs)

TECH 6244. Applied Embedded Systems — 3 hrs.

Design and implementation of microcontroller-based embedded computing systems to solve real-world problems. Methodologies, hardware platforms, software design and analysis, embedded OS, real-time scheduling, mixed signal processing, hardware accelerators, low power optimization. Prerequisite(s): Admitted to the MS Technology Program OR Instructor Consent. (Even Falls)

TECH 6250. Technology of Productivity Improvement — 3 hrs.

Exploration of productivity as an operational concept; analysis of productivity in industrial settings to seek improvement through technical and managerial expertise. Prerequisite(s): Admitted to the MS Technology Program OR Instructor Consent. (Variable)

TECH 6258. Total Quality Management — 3 hrs.

Managerial, technological, behavioral, and statistical concepts applied to total quality management. Quality management philosophies, continuous improvement, productivity, and issues affecting quality that apply to manufacturing, service, and technological organizations. Prerequisite(s): Admitted to the MS Technology Program OR Instructor Consent. (Odd Springs)

TECH 6275. Advanced Lean and Sustainable Operations — 3 hrs.

Skills and techniques in Lean principles applied to manufacturing and service industries: Lean enterprises, process development, supply networks, JIT tools - SMED, Kaisen, 5S, Poka-yoke, value stream mapping, time studies, motion studies, ergonomics, sustainability, sustainable operations, and carbon footprint calculations. Prerequisite(s): Admitted to the MS Technology Program OR Instructor Consent. (Odd Falls)

TECH 6282. Technology Seminar — 1 hr.

Selected advanced topics in technology and engineering technology as needed. May be repeated for a maximum of 3 hours. (Variable)

TECH 6288. Master Internship/Project — 3 hrs.

Masters' students may choose to do an internship or a research project, but not both. An internship is a supervised practicum in an industrial organization, public service agency, or education setting. A research project is a major industrial assignment ending with a measured deliverable with a substantial written report required. Approval by department graduate advisor is required for registration. Students should not take this course during their first semester. Prerequisite(s): Admitted to the MS Technology Program OR Instructor Consent. (Variable)

TECH 6292. Research Methods in Applied Engineering — 3 hrs.

Introduction to research and scholarly investigation. Critical Analysis of Research, Research Problem Purpose, Characteristics of Good Research Questions, Hypothesis Variables, The Value of a Literature Review, Purpose, Need, Validity, Reliability, Quantitative Research Methodologies, Experimental Research, Correlational Research, Causal - Comparative Research, Samples, Survey research, Qualitative Research methodologies, Historical, Ethnographic Research, Individual exploration of possible thesis topics, Research proposal, Presentation methods. Prerequisite(s): Admitted to the MS Technology Program OR Instructor Consent. (Spring)

TECH 6295. Advanced Management and Supervision Technology — 3 hrs.

Development of knowledge, skills, and advanced application experiences of management technologies utilized in industrial supervision and management. Prerequisite(s): Admitted to the MS Technology Program OR Instructor Consent. (Even Falls)

TECH 6299. Research (Master's Thesis).

Prerequisite(s): Admitted to the MS Technology Program OR Instructor Consent. (Fall and Spring)

TECH 6300. Advanced Technical Project Management for Engineering and Technology — 3 hrs.

Technical project management and system management ensure technical progress toward objectives, proper deployment and conversation about human and financial resources, and achievement of cost and schedule targets. The course focuses on technical, industrial systems development, scheduling technical project planning and control; structuring performance measures and metrics; technical teams and technical project management. Prerequisite(s): TECH 3131/5131 or background knowledge in PM BOK and consent of instructor. (Odd Springs)

TECH 6400. Introduction to Applied Systems Development & Management — 3 hrs.

This course presents the foundations of operational analysis, systems engineering architecture, systems engineering, and project management, in an integrated format. Through a synchronized combination of in-class lectures, industrial guest speakers, and individual and team assignments, this course provides an overall perspective for corporate decision making using a systems of systems approach. Prerequisite(s): consent of department. (Fall)

TECH 6420. Systems Architecture & Management — 3 hrs.

Systems Engineering Architecture combines the structure of all engineering systems, elements and the tactical insights of operational planning to deliver a specific capability, element or product. This course takes an analytical and data-driven approach to decompose and analyze the constituent parts of a mission in order to identify measurable trade-offs and draw conclusions. Prerequisite(s): TECH 6400. (Fall)

TECH 6440. Systems Engineering & Management — 3 hrs.

As systems/products/processes grow increasingly complex to meet the demands of the contemporary global market, companies are challenged to consistently deliver high-quality products under tighter and tighter budgets and schedules. This Systems Development course provides a multidisciplinary set of tools and techniques for understanding, organizing, and managing the complexity of product development throughout the product life cycle. This course brings together current industry best practices to ensure robust, cost-effective approaches that meet stringent functional, performance, and cost requirements. Prerequisite(s): TECH 6400. (Spring)

TECH 6460. Systems Life Cycle Management & Applications — 3 hrs.

This course provides a comprehensive overview of the applied solution design and management system acquisition life-cycle management, technical and business processes. The course also presents the program management integration process that ties them all together. The course goal is to immerse the students in applied system design management, acquaint them with the specialized terminology, familiarize them with the roles of the primary life cycle stakeholders and demonstrate how it all fits together. Prerequisite(s): TECH 6400. (Spring)

TECH 6500. Applied Systems Development & Management Capstone — 6 hrs.

The capstone teach project will incorporate all aspects of the Applied Systems Engineering Management program. As the student progresses through the sequence of courses, each will be applied to the identified

capstone project to build toward completion. Prerequisite(s): consent of instructor. Corequisite(s): TECH 6400. (Summer)

TECH TEE: Technology Engineering Education Courses

TECH TEE 1000. Introduction to Technology and Engineering Education — 3 hrs.

Evolution, philosophy and contemporary approaches in technology and engineering education. Examination of career opportunities and curriculum design. This course will explore the historical and philosophical background, contemporary approaches, trends, and the role of technology and engineering education, as well as Career and Technical education in the total school curriculum. The course will specifically explore what it means to be a professional educator and will specifically look at the role of engineering design and innovation in a STEM curriculum as well as developing curriculum for Technology and Engineering and CTE Classrooms. (Fall)

TECH TEE 2020. Transportation Technology — 3 hrs.

Students will develop the requisite skills to build solutions to transportation challenges provided in class; as well as perform small engine repair and/or rebuild. (Variable)

TECH TEE 3100/5100. Technology and Engineering Education Curriculum Planning — 3 hrs.

Development of programs and courses for technology and engineering education and related fields including content decision-making, delivery strategies, and student/program evaluation. Prerequisite(s): TECH 1019 or TECH TEE 1000; junior standing. (Spring)

TECH TEE 3150/5150. Technology & Engineering Education Lab Management — 3 hrs.

Design of safe and effective facilities for technology and engineering education and related fields, facility and classroom management, and development of a safety program. Prerequisite(s): TECH TEE 1000; junior standing. (Spring)

TECH TEE 4100. Technology and Engineering Education Level 3 Teaching Experience — 1 hr.

Students in the TEE program are required to complete 4 levels of teaching experiences. This is the level 3 experience. Students are expected to complete a number of hours of observation as well as delivering some content in the classroom under the supervision of the cooperating teacher. Prerequisite(s): junior standing. Corequisite(s): TECH TEE 4200/5200. (Fall)

TECH TEE 4200/5200. Technology and Engineering Education Methods — 2 hrs.

Methods of teaching in technology and engineering education and related fields, including group and individualized strategies. This class must be completed with a minimum grade of C prior to student teaching. This course helps fulfill a core requirement for undergraduate students seeking a Bachelor of Arts Degree in the Technology Education Program and the Bachelor of Science in Technology and Engineering Education Program at UNI; as well as the methods requirement for the BOEE CTE Authorization. Prerequisite(s): TECH TEE 1000; junior standing. (Fall)

Course Descriptions

TECH TEE 4300/5300. Career and Technical Education Methods — 2 hrs.

Methods of teaching in career and technical education and related fields, including group and individualized instructional strategies. Prerequisite(s): junior standing. (Summer)

TESOL: TESOL/Applied Linguistics

Courses

TESOL 2015. Language Today — 3 hrs.

Examination of linguistic diversity within the U.S. with a focus on how language use is related to personal and group identity. (Fall and Spring)

TESOL 2310. Modern English Grammar and Usage — 3 hrs.

An examination of modern English grammar covering structural basics and discussions of form, meaning, and use related to oral and written language. (Variable)

TESOL 3110. The Structure of English — 3 hrs.

Linguistic analysis of phonology, syntax, and semantics in modern American English; study of language development and regional and social variation. No credit if prior credit in TESOL 4120/5120. (Variable)

TESOL 3550. Constructing Cross-Cultural Bridges — 3 hrs.

Within a Study Abroad experience, exploring multiple components of a specific culture firsthand; attention to the interrelationships among various cultural components such as history, religion, social values and practices, community organization, and language; course activities and requirements designed to increase intercultural understanding and effective interactions among individuals across different cultures. (Same as LANG 2020) (Summer)

TESOL 3565. Intercultural Perspectives — 3 hrs.

An interdisciplinary approach for understanding intercultural perspectives and developing effective intercultural skills for meeting the challenges of today's interconnectedness of societies and cultures both locally and globally. (Same as CAP 3165 and GER 3334) (Variable)

TESOL 3710. Content Area Strategies for English Language Learners — 3 hrs.

Insights from linguistics and second language acquisition applied to teaching emergent bilingual students in content area classes; for prospective and current teachers of content area subjects (i.e., English). (Variable)

TESOL 4120/5120. Introduction to Linguistics — 3 hrs.

Overview of phonetics, phonology, morphology, syntax, and semantics in a variety of languages; includes study of development in first and second languages as well as study of regional and social variation. Prerequisite(s): junior standing or consent of TESOL major advisor. (Fall and Spring)

TESOL 4140/5140. History of the English Language — 3 hrs.

Developmental survey of the English language from its beginnings to the present as a product of linguistic change and variation, political history, and social attitude. Prerequisite(s): TESOL 4120/5120 or TESOL 3110; junior standing. (Variable)

TESOL 4198. Independent Study.

(Fall and Spring)

TESOL 4340/5340. English Grammar: Form and Function — 3 hrs.

Investigation of the grammatical system of English; focus on form as well as function. Strategies for analysis and teaching grammatical forms and functions. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): TESOL 4120/5120 or TESOL 3110. (Variable)

TESOL 4350/5350. Phonetics, Phonology, and Language Teaching — 3 hrs.

This course offers an introduction to basic aspects of phonetics, phonology, and second language speech development, and their pedagogical application to teaching English pronunciation. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): TESOL 4120/5120 or TESOL 3110. (Variable)

TESOL 4510/5510. Language Development — 3 hrs.

Study of contemporary theory and research in first and second language acquisition with applications for teaching English to non-native speakers. Prerequisite(s): junior standing. (Variable)

TESOL 4520/5520. Cultural Aspects of Language and Language Teaching — 3 hrs.

Investigation of the relationship between language and culture and the interactions among language, social institutions, cultural beliefs, and individual behavior. Applications for teaching and learning language in use in real life contexts. Prerequisite(s): TESOL 4120/5120 or TESOL 3110; junior standing. (Variable)

TESOL 4540/5540. Sociolinguistics — 3 hrs.

Study of language and society, including language variation associated with such factors as geography, socioeconomic class, and gender. Prerequisite(s): TESOL 4120/5120 or TESOL 3110; junior standing. (Variable)

TESOL 4720/5720. Bilingualism and Bilingual Education — 3 hrs.

Trends in bilingual education and current approaches to meeting the needs of emergent bilingual learners. Topics include theories, policies, and classroom practices related to bilingualism in education. Prerequisite(s): junior standing. Prerequisite(s) or corequisite(s): TESOL 4120/5120 or TESOL 3110. (Variable)

TESOL 4760/5760. Language Teaching Methods II — 3 hrs.

Pedagogical principles and practical guidelines for developing effective teaching practice including adaptations for varied cultural contexts. Topics include: language acquisition, the four skills (reading, writing, speaking, listening), lesson planning, design and adaptation of instructional materials, and curriculum development. Prerequisite(s): TESOL 3110 or TESOL 4120/5120; junior standing. (Spring)

TESOL 4770. Undergraduate TESOL Practicum — 3 hrs.

Observation and practice teaching in elementary and secondary ESL classrooms. Emphasis on educational program models present in U.S. schools and on best practices in meeting the needs of English Language Learners in these environments. Attention to the requisites and realities of teaching within the State of Iowa, including assessment, reporting, and standards. Prerequisite(s) or corequisite(s): LANG 4740/5740 or TESOL 4760/5760. (Fall)

TESOL 6100. Introduction to Graduate Study in TESOL/Applied Linguistics — 3 hrs.

Introduction to sources, tools, and techniques in graduate-level study and research in TESOL and language sciences. (Fall)

TESOL 6289. Seminar in Language — 3 hrs.

Topic listed in Schedule of Classes. May be repeated for credit on different topics. (Fall and Spring)

TESOL 6297. TESOL Practicum.

Graduate-level student teaching of English as a second language.

Prerequisite(s): consent of instructor. (Fall and Spring)

TESOL 6510. Second Language Acquisition — 3 hrs.

Historical background and methodology of second language acquisition research; current theories of acquisition and learning; role of individual and societal variables in language learning. (Variable)

TESOL 6740. Computer Assisted Language Learning (CALL) — 3 hrs.

Exploration of purposes, applications, and roles of computers in language learning and language testing; application to skills of reading, writing, listening, and speaking. Use of Internet resources and tools. (Variable)

TESOL 6760. Language Testing — 3 hrs.

Examination of basic approaches and techniques for constructing and interpreting language tests. (Variable)

TEXDSGN: Textiles and Apparel

Courses

TEXDSGN 1002. Textile Science — 3 hrs.

Fundamentals of textiles as related to the production, sale, and use of apparel, interiors, and other products. Laboratory experiences related to the identification of fibers, yarns, and fabrics. (Fall and Spring)

TEXDSGN 1003. Creative Textile and Apparel Design Foundations — 3 hrs.

Investigation of elements and principles of design as they apply to textiles and apparel. (Fall)

TEXDSGN 2004. EuroAmerican Fashion Design History — 3 hrs.

Euro-American Apparel Design History from the Greek period to the end of the twentieth century. (Variable)

TEXDSGN 2005. Fashion Event Planning and Digital Marketing — 3 hrs.

Promotion and digital marketing as used within the textile and apparel industry. Includes marketing strategies, media selection and use, planning and budgetary processes, publicity, special event planning. (Spring)

TEXDSGN 2007. Apparel Assembly and Technical Design — 3 hrs.

Introduction to the development and assembly methods of apparel products and the relationship to product aesthetics, quality, performance, and cost. Focus on apparel manufacturing processes and specification sheets. Prerequisite(s): TEXDSGN 1002. (Fall)

TEXDSGN 2008. Computer Applications for the Textile and Apparel Industry — 3 hrs.

Introduction to commonly used computer aided design (CAD) software as applied to both apparel product development and textile design. Knowledge of basic computer skills is required. Prerequisite(s) or corequisite(s): TEXDSGN 1003. (Fall)

TEXDSGN 3009. Textile Structures & Sourcing — 3 hrs.

Structural and functional aspects of textile yarns and fabrics. Manufacturing techniques are related to physical properties of yarns and fabrics used in apparel and other end uses, with a focus on textile and apparel product development. Prerequisite(s): TEXDSGN 1002. (Variable)

TEXDSGN 3012. Fashion Design: Flat Pattern and Draping — 3 hrs.

Apparel design using a product development process, emphasizing the design process, line development, sourcing materials, costing, and production. Advanced apparel production skills (draping and pattern grading) are further developed within apparel design projects. Prerequisite(s): TEXDSGN 2007. (Spring)

TEXDSGN 3013. Professional Development: Textile and Apparel — 2 hrs.

Serves as the program capstone experience. Students study leadership skills, professional ethics, as well as prepare an internship experience. Course culminates with a large-scale group experiential learning project conducted in the field. Prerequisite(s): TEXDSGN 2007; junior standing. (Fall)

TEXDSGN 4192/5192. Research in Textiles and Apparel — 1-3 hrs.

Conduct supervised research and/or scholarly project. Prerequisite(s): research methods course; junior standing; consent of instructor. (Variable)

TEXDSGN 4194/5194. Problems in Textiles and Apparel — 1-4 hrs.

Individual topic areas of in-depth study. Prerequisite(s): junior standing; consent of instructor. (Variable)

TEXDSGN 4195. Internship in Textile and Apparel — 4 hrs.

Supervised experience in approved work situation. Transfer students must complete one full semester in residence before being approved for internship. Prerequisite(s): TEXDSGN 1003; TEXDSGN 1002; TEXDSGN 2007; TEXDSGN 1059 (Fashion Culture and Industry) or PRODINNO 1000; TEXDSGN 2008. (Summer)

TEXDSGN 4198. Independent Study in Textiles and Apparel. (Variable)

THEATRE: Theatre

Courses

THEATRE 1000. Theatre in Our World — 3 hrs.

This course will explore the basic structures of theatre, how it impacts society, and how society shapes and inspires theatre. Students will also explore and collaboratively experience processes and roles common to theatrical creation. (Fall and Spring)

THEATRE 1005. Acting for Non-Majors — 3 hrs.

Through exploration of various acting methods and techniques, this course builds skills in creativity, oral communication and presentation, and critical analysis. An ideal course for students whose career paths require presenting, creating, and flexible thinking. Participants will explore improvisation, scene study, and a variety of acting exercises. At the conclusion of the course, students will be more comfortable with public speaking, creative problem solving, and thinking on their feet. This course is appropriate for all students, no experience necessary. (Variable)

THEATRE 1010. Foundations of Theatre — 3 hrs.

A collaborative approach to the exploration and development of the creative impulse, processes and results in the theatre. Production participation required; lab taken concurrently. Lab fee. Corequisite(s): THEATRE 1011. (Fall and Spring)

Course Descriptions

THEATRE 1011. Foundations of Theatre Lab — 1 hr.

Provides running crew assignments for all productions in a given semester. Requires an extensive evening commitment. Corequisite(s): THEATRE 1010. (Fall and Spring)

THEATRE 1012. Stagecraft: Scenery/Lights — 3 hrs.

Introduction to scenery and lighting planning, research and construction for theatrical production. Involves work in the Strayer-Wood Theatre Scenery Studio on TheatreUNI mainstage season plays. Discussion, 3 periods; lab, 3 periods. Lab fee. (Fall and Spring)

THEATRE 1015. Stagecraft: Costumes — 3 hrs.

Introduction to costume planning, research and construction for theatrical productions. Involves work in the Strayer-Wood Theatre Costume Studio on TheatreUNI mainstage season plays. Discussion 3 periods, lab 3 periods. Lab fee. (Fall and Spring)

THEATRE 1022. Playscript Analysis — 3 hrs.

Entry level class that introduces students to play reading using both major dramatic texts and contemporary experimental texts. Students will investigate key works of dramatic literature for insight into storytelling, its impact on society, and the connection between art and the culture in which it is created. (Fall and Spring)

THEATRE 1030. Acting — 3 hrs.

Introduction to the craft of acting beginning with exercises and culminating in applying the experience of those exercises to a scene from a play. Exploration of increasing self-awareness. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): For Theatre majors: none. All others: consent of instructor. (Fall and Spring)

THEATRE 1040. Movement for the Actor — 3 hrs.

Designed to encourage relaxation, limberness, and strength. Exploration of ways in which movement and sensory work can trigger and influence character work and emotional connection. Discussion, 3 periods; lab, 3 periods. (Variable)

THEATRE 1050. Creative Drama — 3 hrs.

Prepares students to guide children and young adults in creative drama. Study of the art of spontaneous drama as it relates to education and development of young people cognitively and creatively. Discussion, 3 periods; lab, 3 periods. Lab fee. (Variable)

THEATRE 2025. Body, Voice, Awareness — 3 hrs.

Learn and apply techniques to free body, voice, mind and emotions for performance. Explore body-and-voice based approaches to theatre by 1) creating actor-generated original work and 2) inhabiting a character from an extant script. Discussion, 3 periods; lab, 3 periods. Prerequisite(s) or corequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1030. (Variable)

THEATRE 2050. Theatre Practicum — 1 hr.

Credit for approved work in theatre production (e.g., construction crew, performance, crew head, stage manager). Three required (one may be in performance). Prerequisite(s): THEATRE 1010; THEATRE 1011. (Fall and Spring)

THEATRE 2055. Devised Theatre — 3 hrs.

Collaboration in the creation and presentation of devised work. Discussion 3 periods; lab 3 periods. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1012 OR THEATRE 1015, THEATRE 1022; THEATRE 2025 or THEATRE 1030; or consent of the department. (Variable)

THEATRE 2060. Production Studies — 3 hrs.

Involvement in a play's production process combined with an in-depth study of a topic related to that production. May be repeated for maximum of 6 hours. Prerequisite(s): THEATRE 1010;

THEATRE 1011; THEATRE 1022; or consent of the department. (Variable)

THEATRE 2151. Community Engagement — 1-4 hrs.

Credit for approved work in youth theatre, drama-based education, or other community settings. May be repeated for a maximum of 12 hours. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1050; consent of supervising instructor. (Fall and Spring)

THEATRE 2190. Stage Management — 3 hrs.

Introduction to techniques, procedures, and forms used in stage managing theatre and allied performing arts. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1012 OR THEATRE 1015; sophomore standing; or consent of instructor. (Spring)

THEATRE 3003. Vocal Production for the Actor — 3 hrs.

Using relaxation and breathing techniques developed by voice practitioners, students will release tension and identify vocal habits which impede the acting process. Includes vocal precision and power, IPA and anatomy. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 2025. (Variable)

THEATRE 3030. Auditioning and the Business of Acting — 3 hrs.

Selection, preparation, and performance of appropriate audition materials and development of proper audition behavior for the actor. Exploration of graduate schools and acting as a business. 3 periods. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1030; THEATRE 3126 (one semester) or consent of instructor. (Variable)

THEATRE 3050. Theatre Production — 1-4 hrs.

Assumption of a major production responsibility under supervision of faculty. May be repeated in various production areas for maximum of 12 hours. Prerequisite(s): junior standing; consent of supervising instructor. (Fall and Spring)

THEATRE 3051. Performance Engagement — 1 hr.

Graded credit for participation as a performer in a production. May be repeated for a maximum of 8 hours. (Fall and Spring)

THEATRE 3060. History of the Theatre I — 3 hrs.

Examination of plays, production methods, and historical trends in the theatre from its beginnings into the 1600s, including script analysis in preparation for production. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1022; or consent of instructor. For Communication-Theatre Teaching majors: THEATRE 1010; THEATRE 1011; or consent of instructor. (Fall)

THEATRE 3070. History of the Theatre II — 3 hrs.

Examination of plays, production methods, and historical trends in the theatre from 1600 through the present, including script analysis in preparation for production. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1022; THEATRE 3060. (Spring)

THEATRE 3090. Theatre for Communities — 3 hrs.

Course focuses on working with community partners from an asset-based model. Application of theatre techniques to various community settings and projects. Prerequisite(s): junior standing. (Spring)

THEATRE 3110/5110. Theatre for Youth — 3 hrs.

Specific problems of producing theatre for children, including readings in children's literature, child psychology, and plays. Practical experience in improvised and scripted performances. Lab fee. Prerequisite(s): THEATRE 1050 or consent of instructor. (Spring)

THEATRE 3115. Methods of Teaching Drama and Theatre — 3 hrs.

Introduction, exploration, and application of various methods for teaching and assessing drama and theatre practices and learning in K-12 venues. Prerequisite(s): Theatre majors: THEATRE 1010; THEATRE 1011; THEATRE 1012; THEATRE 1030; THEATRE 1050. These prerequisites are waived for Communication-Theatre Teaching majors and minors. Prerequisite for other students: consent of instructor. (Fall)

THEATRE 3120/5120. Acting Styles — 3 hrs.

Application of techniques learned in THEATRE 1030, including theoretical studies of various styles of acting as well as extensive scene work. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1022; THEATRE 2025; THEATRE 1030; THEATRE 3003; THEATRE 3126; or consent of instructor; junior standing. (Fall)

THEATRE 3126. Acting Studio I — 3 hrs.

Students will apply the fundamental tools and principles of acting to a variety of scripted material, including assigned scenes and monologues. Developing a practical understanding of text analysis for the actor will be a primary component of the course. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1030; junior standing. (Fall)

THEATRE 3127. Acting Studio II — 3 hrs.

Building upon the skills learned in Acting Studio I, students will explore various acting techniques through assigned readings, practical exercises, group discussion, and application to self-selected material. Students will experiment with different tools as they hone their individual actor processes. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1030; THEATRE 3126. (Spring)

THEATRE 3135/5135. Stage Combat — 3 hrs.

Basic skills of modern and historic styles of fencing, swordplay, and other modes of fighting, and application of these skills to the planning and safe execution of an effective and artistic stage fight. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): for Theatre majors: THEATRE 1010; THEATRE 1011; THEATRE 1012 OR THEATRE 1015; THEATRE 1022; THEATRE 2025 OR THEATRE 1030. For non-Theatre majors: junior standing. (Spring)

THEATRE 3141. Stage Makeup — 3 hrs.

Project work in makeup for the theatre. Lab fee. Prerequisite(s): for Theatre majors: THEATRE 1010; THEATRE 1011; THEATRE 1015; or consent of instructor. Prerequisite for other students: consent of instructor. (Spring)

THEATRE 3143. Drafting for Theatre — 3 hrs.

Project work in drafting for the theatre. Lab fee. Prerequisite(s): for Theatre majors: THEATRE 1010; THEATRE 1011; or consent of instructor. Prerequisite for other students: consent of instructor. (Variable)

THEATRE 3144. Costume Patterning & Draping — 3 hrs.

Project work in costume pattern development for the theatre. Lab fee. Prerequisite(s): For Theatre majors: THEATRE 1010; THEATRE 1011; THEATRE 1015. Prerequisite for other students: consent of instructor. (Fall)

THEATRE 3146. Theatrical Painting — 3 hrs.

In this course students will explore and apply the skills and techniques of the scenic artist. Project work will include color theory, craft, tools, materials, and their application to scenery and props. Lab Fee. Prerequisite(s): For Theatre majors: THEATRE 1010;

THEATRE 1011; THEATRE 1012 or THEATRE 1015. Prerequisite for other students: consent of instructor. (Spring)

THEATRE 3155. Topics in Theatre Design and Production — 3 hrs.

Advanced topics in Design and Production involving research and experiential investigation into production techniques. Rotating topics may include Period Styles for Theatre, Advanced Problems in Theatre: Make-up, Costume, Scenery, Lighting, or Sound Production. Additional topics may be offered depending on pedagogical and/or production needs. May be repeated for a maximum of 6 hours. Prerequisite(s): for Theatre majors: THEATRE 1010; THEATRE 1011; junior standing and either THEATRE 1012 OR THEATRE 1015 as applicable to the specific content of the course; or consent of instructor. Prerequisites for other students: junior standing and consent of instructor. (Variable)

THEATRE 3160. Directing — 3 hrs.

Analysis of plays and fundamentals of directing. Discussion, 3 periods; lab, 3 periods. Prerequisite(s): For Theatre majors: THEATRE 1010; THEATRE 1011; THEATRE 1022; THEATRE 1030; THEATRE 3060; junior standing. For Communication-Theatre-Teaching majors: THEATRE 1030; junior standing. (Fall and Spring)

THEATRE 3200/5200. Internship — 1-8 hrs.

Intensive work in specialized area at off-campus theatre facility. For advanced students in theatre. May be repeated for maximum of 8 hours. Prerequisite(s): junior standing; consent of advisor and department head. (Variable)

THEATRE 3220. Design I: Theatrical Design Aesthetics — 3 hrs.

In this course, students will be introduced to the elements and principles of design, and how to apply them to the theatrical design process. Combining an understanding of aesthetics, the language of critique, and the use of 2D and 3D rendering media, students will engage in theatre-specific design processes. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1012 or THEATRE 1015. (Spring)

THEATRE 3230. Design II: Theatrical Design Process — 3 hrs.

In this course, students will revisit the elements and principles of design encountered in Design I and apply them to projects in the areas of theatrical costume, lighting, scenic, and sound design. While developing further understanding of aesthetics, the language of critique, and the use of design media, students will conceptualize and create discipline-specific expressions of design choices as communication tools appropriate for professional theatrical designers. Prerequisite(s): THEATRE 1015 or THEATRE 1012; THEATRE 3143; THEATRE 3220. (Fall)

THEATRE 3240. Design III: Theatrical Design Application — 3 hrs.

This is an advanced course, utilizing the skills learned in Design I and Design II. Students will continue to develop portfolio-quality work while starting to specialize in their design area of choice. With an emphasis on collaboration, students will create cohesive designs for theatrical productions. There will be the expectation of creating a fully conceptualized design with accompanying research and paperwork. The students will participate in design presentations to show their ability to express and support their design choices. Prerequisite(s): THEATRE 1010; THEATRE 1011; THEATRE 1015 or THEATRE 1012; THEATRE 3220; THEATRE 3230. (Spring)

UNIV: University, Interdisciplinary Courses

UNIV 1000. First-Year Cornerstone: Integrated Communication I — 3 hrs.

The first of two courses in a single-year sequence that integrates written, oral, visual, and digital communication. Guidance and practice in critical reading, research processes, and rhetorical strategies applied to composing and delivering effective oral and written discourse - including visual and digital resources - for different purposes and audiences. Attention will be paid to critical thinking and discovering strategies for academic success. Successful completion of both UNIV 1000 and UNIV 1010 satisfies the UNIFI Written and Oral Communication requirements; credit earned for UNIV 1000 alone satisfies neither the UNIFI Written or Oral Communication requirement. Prerequisite(s): first-year student; neither UNIFI Written or Oral Communication requirement previously satisfied. (Fall)

UNIV 101. Test Course — 3 hrs.

This is a test course used only for testing purposes.

UNIV 1010. First-Year Cornerstone: Integrated Communication II — 3 hrs.

The second of two courses in a single-year sequence that integrates written, oral, visual, and digital communication. Attention will be paid to interpersonal and small group communication and research strategies and resources for academic inquiry, especially for the use in persuasive communication contexts. Students will receive continued guidance and practice in composing and delivering effective oral and written discourse - including use of visual and digital resources - for documents and presentations within various professional and public settings. Successful completion of both UNIV 1000 and UNIV 1010 satisfies the UNIFI Written and Oral Communication requirements. Prerequisite(s): first-year student; UNIV 1000. (Spring)

UNIV 1050. Career Decision Making — 2 hrs.

Introduction to a structured career decision-making process, including self-awareness, career and educational information, computerized and Internet assistance and resources, and related activities/projects. (Fall and Spring)

UNIV 1055. Strategies for Academic Success — 3 hrs.

Provides development and use of effective learning and study strategies/skills necessary for independent learning and academic success. University policies, procedures, and services will be addressed. (Fall and Spring)

UNIV 1092. Presidential Scholars Seminar — 1-3 hrs.

For Presidential Scholars only. Credit and topic listed in the Schedule of Classes. May be repeated in a different topic. (Variable)

UNIV 119P. Presidential Scholars Research — 1-3 hrs.

For Presidential Scholars only. Credit and topic to be approved by the Presidential Scholars Board. May be repeated once for a maximum of 6 hours. (Variable)

UNIV 2196. Honors Seminar — 1-3 hrs.

Seminar covering selected topics. Some sections may be restricted to University Honors students. May be repeated for credit. Prerequisite(s): sophomore standing or consent of instructor. (Variable)

UNIV 3003. Study Abroad: (Topic) — 3 hrs.

This course provides students the opportunity to explore firsthand a range of identities, communities, and conceptions of the human condition. Engage in effective critical inquiry to address complex topics in a global context. By analyzing ideas, works, and institutions, alongside the act of traveling abroad, UNI students will develop habits of mind characterized by thorough exploration of issues, ideas, histories, artifacts, and theories, including the collection and analysis of evidence before accepting or formulating an opinion or conclusion in relationship to another culture or one's own. (Variable)

UNIV 31CI/UNIV 31CI. Co-op/Internship.

(Variable)

UNIV 3930. Civic Engagement and the Humanities: (Topic) — 3 hrs.

Practicum in civic engagement, focusing on the application of civic knowledge, civic values, and civic skills as integrated with humanistic knowledge, humanistic values, and humanistic skills to address a real-world problem. Prerequisite(s): junior standing. (Variable)

UNIV 4197. Honors Thesis — 1-3 hrs.

Development and approval of thesis topic followed by completion of thesis and public presentation. May be repeated for maximum of 3 hours. Some sections may be restricted to University Honors students. Prerequisite(s): senior standing or consent of instructor. (Variable)

UNIV 4555. Interactive Digital Studies Practicum — 3 hrs.

Examines tools/methodologies involved in the production of interactive media. Students will study development models in a real-world setting; work with involved clients; develop new technology skills; and as a single class, consultatively produce a major interactive project. Prerequisite(s): declared Interactive Digital Studies (IDS) major; CM CORE 1001; CM CORE 1010; COMM 3555; COMM 4544/5544. Prerequisite(s) or corequisite(s): two completed IDS bundles; or consent of instructor. (Spring)

UNIV 51CI. Co-op/Internship.

(Variable)

WGS: Women's and Gender Studies

Courses

WGS 1040. Women's and Gender Studies: Introduction — 3 hrs.

Interdisciplinary study of women's and gender issues from historical and contemporary perspectives, using the methods and theories of feminist scholarship and gender analysis. Topics may include study of systems of domination and subordination, stereotyping and gender bias, intersections of gender, race, ethnicity, sexuality, class. (Fall and Spring)

WGS 2040. Introduction to LGBTQ Studies — 3 hrs.

This class is dedicated to the interrogation of institutions of oppression and the ways that power circulates. We will examine the constructed and essential components of sex, gender, sexuality, and relationships to see how these axes operate in everyday life and in institutions. The approach taken is decidedly eclectic, with influences from history, feminism, queer theory, performance studies, linguistics, the arts, sociology, STEM, and law. (Fall and Spring)

WGS 2050. Masculine Cultures — 3 hrs.

Recent theoretical developments have challenged stereotypes by showing how myriad "masculine" identities (of and for both men and women) are produced within specific cultural domains. Masculinities,

in their various forms, shape the lives of both men and women, and this course will use an intersectionality perspective to explore the construction, reproduction, and impact of masculinities on the cultural institutions of politics, education, work, religion, sports, family, media, and the military, to name a few. Paying careful attention to the conjunctions between materiality and culture, this course will interrogate how masculinities shape individual lives, groups, nationalisms, organizations, and institutions. (Fall and Spring)

WGS 3195/5195. Internship in Women's and Gender Studies — 1-3 hrs.

Experiential application of theory and scholarship. Responsibilities determined by faculty advisor, on-site supervisor, and student, according to organizational needs and career goals. Prerequisite(s): Women's and Gender Studies minor with completion of two or more core courses; junior standing. For graduate students: consent of WGS Director. (Variable)

WGS 6195. Graduate Internship in Women's and Gender Studies — 1-4 hrs.

Field experience for students enrolled in the Applied Track of the Women's and Gender Studies MA program. May be repeated for maximum of 4 hours. Prerequisite(s): Must be admitted to Women's and Gender Studies M.A. program; consent of Women's and Gender Studies Director. (Fall, Spring, Summer)

WGS 6289. Graduate Seminar in Women's and Gender Studies: Comparative Feminist Theories — 3 hrs.

Analysis of identities and oppressions from national and international feminist perspectives. (Spring)

WGS 6291. Graduate Proseminar in Women's and Gender Studies — 1 hr.

This class provides graduate students with an overview of Women's and Gender Studies. It explores the differences between interdisciplinary programs and those based within a single discipline and gives students tools to recognize and address tensions between disciplines that may occur in and out of the classroom. It assists students in understanding the rigors of graduate work, provides strategies for how to better approach, understand, and succeed in graduate school, explores the wide variety of career options available to those with a Women's and Gender Studies MA degree, and prepares students for the job market or future work in academia. (Fall)