

**Academic English Program (AEP)**

AEP 0100 - Writing and Grammar Level 1: Beginner (4)

**EAP 0650 - English through Service Level 4 (1)**

This course will engage students in service as part of the mission of St. Louis

**EAP 1020 - Academic Reading and Study Skills I (3)**

This class is for international students who need to develop their reading skills from the intermediate high to advanced low level. Students will be preparing for intensive and extensive reading in social sciences and core curriculum classes in their university programs. This course also has a service learning component.

**EAP 1030 - Academic Presentations and Speaking Skills (1)**

The academic speaking skills class is designed to develop skills and strategies necessary for giving effective academic presentations in university-level courses. Prerequisite: TOEFL 510, Oral Evaluation 3+ and SLUWE score 3+.

**EAP 1200 - Academic Writing and Editing Skills II (3)**

This class is for international students who need to develop their writing and grammar skills from the advanced low to advanced level. Prerequisite: SLUWE score 4- or Acad. Writing and Editing Skills I.

**EAP 1210 - Pathway Recitation Lab II (1)**

This recitation lab is for international students who are enrolled in a humanities class in their second semester in the Pathway curriculum. The recitation and discussion activities help make the content and types of assignments more accessible for international students.

**EAP 1215 - Recitation: Business (1)**

This recitation section helps clarify and develop a better understanding of course topics and types of assignments in BIZ 1000. Co-requirement: BIZ 1000

**EAP 1220 - Academic Reading and Study Skills II (0-3)**

This class is for international students who need to develop their reading skills from the intermediate high to advanced low level. Students will be preparing for intensive and extensive reading in social sciences and core curriculum classes in their university programs. This course also has a service learning component.

**EAP 1300 - College Reading & Study Skills (3)**

This course is for international students whose assessment scores indicate a need for review and improvement of reading skills. Emphasis is placed on vocabulary expansion, improved reading comprehension and fluency, and critical thinking skills. Prerequisite: 535 PBT TOEFL.

**EAP 1400 - Writing and Grammar Strategies (3)**

Academic English skills, with an emphasis on writing and grammar. Prerequisites: 510 PBT TOEFL; and minimum 4- SLUWE score.

**EAP 1500 - College Composition for International Students (3)**

Course to improve proficiency in written expression. Intensive practice in paragraph and expository essay writing; study of rhetorical principles and techniques, including cross-cultural comparisons of rhetorical patterns. Equivalent to ENGL-1500. Prerequisite(s): 525 TOEFL; and minimum 4.0 SLUWE score. (Offered every Fall and Spring)

**EAP 1900 - Rhetoric & Research Strategies (3)**

Course designed to develop foreign students' skills in expository writing, and



**IEP 0400 - Beginner English IV (6)**

Four-skill language course. Includes five hours of reading, five hours of writing, three to four hours pronunciation/conversation, five hours of grammar, and 3 hours lab. Prerequisite: English Placement Exam score: TOEFL: 370-399 or its equivalent . Writing score 2+ or its equivalent.

**IEP 0410 - Reading Level 2 (3)**

This course aims to improve students' level of reading from beginner high to the intermediate low level by developing students' reading strategies and skills necessary to be successful in an American academic learning environment. Prerequisites: A 2.5 semester GPA or higher in the IEP Level 1 classes (IEP0310, IEP0320, IEP0330, IEP0340, IEP0350 and IEP0380) with a C or higher in Reading IEP 0310, Writing IEP 0320, Grammar 0330), and a SLUWE of 2.

**IEP 0420 - Writing Level 2 (3)**

This writing course will help students improve their level of writing from the beginner high to the intermediate low level of composition skills. Students will practice the academic writing process, write paragraphs and short essays, and develop test-taking skills. Prerequisites: IEP Level 1 classes (IEP0310, IEP0320, IEP0330, IEP0340, IEP0350 and IEP0380) with a C or higher in Reading IEP 0310, Writing IEP 0320, Grammar 0330), and a SLUWE of 2.

**IEP 0430 - Grammar Level 2 (3)**

This course focuses on improving students' level of grammar at the High Intermediate level by studying specific targeted grammar points. Students will use the targeted grammar points in a communicative setting to succeed in academic writing at the sentence, paragraph and essay level. Prerequisites: IEP Level 1 classes (IEP0310, IEP0320, IEP0330, IEP0340, IEP0350 and IEP0380) with a C or higher in Reading IEP 0310, Writing IEP 0320, Grammar 0330), and a SLUWE of 2.

**IEP 0440 - Pronunciation Level 2 (2)**

This class is designed to teach beginning students the relationship of vowels to consonants and how the alignment of these factors affects pronunciation and diction. Students will also learn to identify the differences between their own L1 (native language) diction and the target L2 (American English) diction. Prerequisites: IEP Level 1 classes (IEP0310, IEP0320, IEP0330, IEP0340, IEP0350 and IEP0380) with a C or higher in Reading IEP 0310, Writing IEP 0320, Grammar 0330), and a SLUWE of 2.

**IEP 0450 - English through Service Level 2 (1)**

This course will engage students in service as part of the mission of St. Louis University and foster a consciousness of social justice. Students participate in a minimum of 20 hours of organized service activities and discuss and reflect upon their experiences in class. Prerequisites: IEP Level 1 classes (IEP0310, IEP0320, IEP0330, IEP0340, IEP0350 and IEP0380) with a C or higher in Reading IEP 0310, Writing IEP 0320, Grammar 0330), and a SLUWE of 2.

**IEP 0480 - Vocabulary/Spelling 2 (1)**

This course aims to improve students' vocabulary and spelling level. Students will learn the 2,000 most common words used in English, which account for 80% of daily conversation and reading. Students will also develop awareness of spelling patterns used in English. Prerequisites: IEP Level 1 classes (IEP0310, IEP0320, IEP0330, IEP0340, IEP0350 and IEP0380) with a C or higher in Reading IEP 0310, Writing IEP 0320, Grammar 0330), and a SLUWE of 2.

**IEP 0500 - Intensive English V (0-6)**

Four-skill language course. Includes five hours of reading, five hours of writing, three to four hours pronunciation/conversation, five hours of grammar, and 3 hours lab. Prerequisite: English Placement Exam score: TOEFL: 370-399 or its equivalent . Writing score 2+ or its equivalent

**IEP 0510 - Reading Level 3 (3)**

This course aims to improve students' level of reading from beginner high to the intermediate low level by developing students' reading strategies and skills necessary to be successful in an American academic learning environment. Prerequisites: A 2.5 semester GPA or higher in the IEP Level 2 classes (IEP0410, IEP0420, IEP0430, IEP0440, IEP0450 and IEP0480) with a C or higher in Reading IEP 0410, Writing IEP 0420, Grammar 0430), and a SLUWE of 2+.

**IEP 0520 - Writing Level 3 (3)**

This course aims to improve students' level of reading from beginner high to the intermediate low level by developing students' reading strategies and skills necessary to be successful in an American academic learning environment. Prerequisites: A 2.5 semester GPA or higher in the IEP Level 2 classes (IEP0410, IEP0420, IEP0430, IEP0440, IEP0450 and IEP0480) with a C or higher in Reading IEP 0410, Writing IEP 0420, Grammar 0430), and a SLUWE of 2+.

**IEP 0530 - Grammar Level 3 (3)**

This course focuses on improving the student's level of grammar from the beginner-high to the intermediate-low level of targeted grammar points. Students will use their own writing to improve their grammar awareness and self-editing skills. Prerequisites: A 2.5 semester GPA or higher in the IEP Level 2 classes (IEP0410, IEP0420, IEP0430, IEP0440, IEP0450 and IEP0480) with a C or higher in Reading IEP 0410, Writing IEP 0420, Grammar 0430), and a SLUWE of 2+.

**IEP 0540 - Pronunciation Level 3 (2)**

This class will teach the students to understand the relationship of vowels and consonants and how the alignment of these factors affects pronunciation and diction. The students will also be able to identify the differences between the own L1 (native language) diction and target L2 (American English) diction. Prerequisites: A 2.5 semester GPA or higher in the IEP Level 2 classes (IEP0410, IEP0420, IEP0430, IEP0440, IEP0450 and IEP0480) with a C or higher in Reading IEP 0410, Writing IEP 0420, Grammar 0430), and a SLUWE of 2+.

**IEP 0550 - English through Service 3 (1)**

This course will engage students in service as part of the mission of St. Louis University and foster a consciousness of social justice. Students participate in a minimum of 20 hours of organized service activities and discuss and reflect upon their experiences in class. Prerequisites: A 2.5 semester GPA or higher in the IEP Level 2 classes (IEP0410, IEP0420, IEP0430, IEP0440, IEP0450 and IEP0480) with a C or higher in Reading IEP 0410, Writing IEP 0420, Grammar 0430), and a SLUWE of 2+.

**IEP 0580 - Vocabulary/Spelling Level 3 (1)**

This course aims to improve students' vocabulary and spelling level. Students will learn the 2,000 most common words found on the General Service List as well as those on the Academic Word List, which account for 90% of academic texts in English. Students will also develop awareness of spelling patterns used in English. Prerequisites: A 2.5 semester GPA or higher in the IEP Level 2 classes (IEP0410, IEP0420, IEP0430, IEP0440, IEP0450 and IEP0480) with a C or higher in Reading IEP 0410, Writing IEP 0420, Grammar 0430), and a SLUWE of 2+.

**Modern Language (MLNG)****MLNG 1000 - Contemporary Issues (3)**

This class studies American culture through topics of global issues, social justice, and cultural diversity. A service learning component will allow students to have a practical application of the knowledge, as well as leadership training in service projects in the urban setting of St. Louis. Required reading and movies will be about different sub-cultures within the United States and variety of global issues.

**MLNG 1100 - Contemporary Issues (3)**

This class studies American culture through topics of global issues, social justice, and cultural diversity. A service learning component will allow students to have a practical application of the knowledge, as well as leadership training in service projects in the urban setting of St. Louis. Required reading and movies will be about different sub-cultures within the United States and variety of global issues.

**MLNG 1200 - Cultural Keywords: Comparing Studies of Western Philosophy and Culture (3)**

This class offers an introduction to the main intellectual, artistic, and cultural movements of Western Culture from Western and non-Western perspective. The periods studied: Classic Greek/Romans, Middle Ages, Modern Age, including Neoclassicism, Romanticism, Realism, and Modernism. These movements will be compared with periods and philosophies from non-Western cultures, including China, India and Muslim cultures. Prerequisite(s): English Language Exam score at the EAP 1200 level.

**MLNG 1300 - Hollywood & History: Storytelling through History & Film (0-3)**

Through the use of storytelling from both history and film, the course looks at the wide diversity of narratives in the American culture. Movies and field trips will connect the topics to local events and historical sites. The goal is to help international students understand aspects of the American culture that can help them as background information in future classes or programs, both in the U.S. and in their home countries.

**Pre-Law Studies (PLS)****PLS 1000 - Introduction to Law (3)**

The purpose of the course is to provide students an introduction to the law and legal principles. The structure of the court system, civil litigation and methods of alternative dispute resolution will be examined. Elements of the following areas of substantive law: torts, contracts, property, trusts and estates, corporations, family law, and criminal law and procedure will be examined.

**PLS 2000 - Intro Legal Research & Writing (3)**

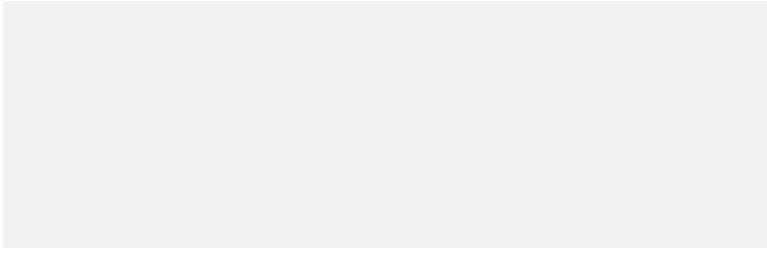
This course has two main objectives (1) to introduce students to the basics of legal research and writing and (2) to introduce students to the fundamentals of legal reasoning and analysis. Students will be required to complete a series of research and writing exercises and a final legal analysis paper.

**PLS 2200 - Law: Service Learning (0-3)**

This course offers exposure to a variety of contemporary legal and policy issues as they intersect with race, ethnicity, gender, socioeconomic status, and other underrepresented classifications. The course will focus on issues that affect diverse populations regionally, across the country, and internationally. Classes will include discussions, role playing, and other interactive activities designed to improve understanding of the course material. Students will be evaluated on multimedia reflections, online and class participation, individual and group research and presentations.

**PLS 2500 - The Anatomy of the Lawsuit (2)**

This hands-on course provides students with a practical understanding of the pretrial process and how discovery procedures shape and impact civil litigation today. The progression of class topics mirror the pretrial process within the context of a hypothetical case. Starting with the initial client interviews, class topics will include: (1) interrogatories; (2) requests for production; (3) discovery motions; (4) depositions; (5) pleadings; and (6) oral arguments. During the course students will be involved in simulated client contact, discovery proceedings, and motion arguments. Students will receive instruction on persuasive legal writing and oral advocacy and will prepare written motions and discovery documents.



**Center/Advanced Dental (CAD)**

**CAD 5010 - Pain: Anat, Phys, Psy, Trtmt (1)**

Explores multiple topics of pain with special emphasis on head and neck pain



**ENDG 5510 - Princpls of Endodontic Surgery (1)**

A comprehensive consideration of endodontic surgery is presented. Instruction and training in the application of relevant biomedical science to meet surgical and clinical requirements is emphasized. Offered every year.

**ENDG 5520 - Amrcn Brd of Endodontics Rview (1)**

Preparation for certification by the American Board of Endodontics. Course includes information on board protocol, case presentation format, and a review of prior board materials to give a foundation for continued preparation to achieve diplomate status. Offered every year.

**ORTH 5620 - Prin of Ortho Techniques I (2)**

Course includes typodont setup in normal occlusion before banding; philosophy of treatment; and a coordination of lectures and seminars with laboratory demonstration on archwire fabrication and reasons for each bend. Offered every year.

**ORTH 5630 - Prin of Ortho Techniques II (2)**

Course includes treatment of Class II, Division 1 non-extraction case and treatment of Class I bimaxillary-protrusion case, requiring removal of permanent teeth. Offered every year.

**ORTH 5650 - Ortho Trmt with Clear Aligners (1)**

Series of lectures covering the didactic and practical knowledge of clear aligner treatment with the Invisalign System using 3D diagnostic tools and techniques. Limited to Graduate Orthodontic Students only. Offered in fall.

**ORTH 5700 - Clinical Procedures (1)**

Introduction of the first-year students to the policies, personal, and protocol of the orthodontic clinical and the ancillary facilities that complement the clinic. (Offered every year.)

**ORTH 5710 - Clinical Orthodontics I (0-2)**

Supervised patient treatment in the Orthodontic Clinic. Offered the first fall semester and every academic term thereafter.

**ORTH 5800 - Sem: Child + Adol Psychology (1)**

The personal-social development of the adolescent from the perspective of life-span psychology is presented and discussed in the context of orthodontics, which includes the psycho-social impact of malocclusion, patient-parent-doctor motivations, communication and interpersonal relationships, patient cooperation and behavior modifications, and the psychology of the orthodontist. Offered every year.

**ORTH 5840 - Diag Sem: Early& Mixed Dentitn (0-1)**

A didactic course on the development of the occlusion, growth-related imbalances and interceptive treatment. Discussions include psychological handling of younger patients, pros and cons of early intervention, early decisions to preserve spaces and pertinent literature review.

**ORTH 5890 - Review for the ABO Examination (0)**

The second year-students attend a series of seminars with various members of the faculty toward preparation for the phase-two, written examination administered periodically by the American Board of Orthodontics. Passing the examination is a required step toward Board certification. (Offered every year.)

**ORTH 5910 - Literature Review (0-1)**

**PERI 5400 - Perio Case Presentation Sem (0-1)**

Resident presentations of patient treatment for critical review and discussion. Residents organize clinical case information and records for presentations of patient diagnosis, treatment planning, and surgical therapy. Gives each

## **African American Studies (AAM)**

### **AAM 2000 - Introduction to African American Studies (3)**

An interdisciplinary survey course that introduces the discipline through the examination of the African diaspora and its impact on the Americas. The course focuses on the movement, conditions, and experiences that shaped the development of the African American Society.

### **AAM 2010 - Contemporary Black America (3)**

A study into the current issues 7624 iss101o



**ANTH 2080 - Urban Issues: Poverty and Unemployment (3)**

**AR 1010 - Communicating in Arabic I (0-3)**

This course will cover all four language skills (speaking, listening, reading, and writing) of Modern Standard Arabic, at an elementary level. Emphasis placed on active use of the language. Students master the Arabic alphabet and basic pronunciation of all the Arabic sounds, learn to read elementary texts and converse in day to day situations.

**AR 1020 - Communicating in Arabic II (0-3)**

A continuation of Arabic I. This course enables students to deepen their knowledge of the four basic language skills (speaking, listening, reading, and writing) and further fosters and understanding and appreciation of Arabic literature and Arabic cultures.

**AR 2010 - Communicating in Arabic III (3)**

AR-2010 is designed to continue building working knowledge of Modern Standard Arabic established up to a pre-intermediate stage in AR-1010 and AR-1020. Students continue developing vocabulary and are introduced to sentence structures of more complexity using intermediate grammar to increase reading and listening comprehension as well as written skills.

**ART 3350 - Monoprints (3)**

An exploration of various procedures and techniques associated with printing single images on paper. A lab fee is required.

**ART 3400 - Ceramics II (3)**

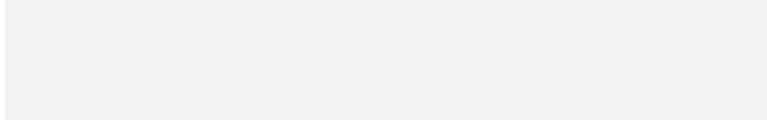






**ARTH 4800 - Contemporary Art (3)**

A study of art from the 1960's to the present.





**ASTD 5700 - Metropolitan America (3)**

Introduction to the study of American urban and suburban life. Course examines American cities, their cultures, and their built environments as these change over time. Students engage scholarship, develop visual literacy for 'reading' the metropolis, and analyze the ways in which built environments shape and reflect American cultural meaning.

**ASTD 5800 - Workshop in the American Metropolis (3)**

This course provides an opportunity for graduate students to conduct intensive field study in the metropolis. St. Louis provides an excellent case study, with its complex interplay of people, processes, neighborhoods, industries, and natural features. Students undertake individual and group projects, tours, and fieldwork exercises in consultation with the instructor.

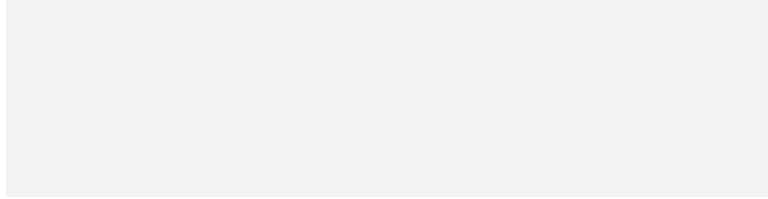
**ASTD 5900 - Practice of American Studies (3)**

**ASTD 6950 - Special Study for Exams (0)**

Students enroll in this course in the semester when they expect to take their PhD oral exams. May be taken no more than twice. Grade is Pass/Fail. The student can pass (or fail) even if she doesn't take the orals in the semester of her first enrollment. Students must make appointments to meet their faculty advisors at least twice in the semester of Special Study enrollment.

**ASTD 6980 - Graduate Reading Course (1-3)**

Graded as a seminar course



**BIOL 1340 - Diversity of Life (3)**

This SLU Inquiry course will provide an overview of the diversity of life on Earth, as well as the diversity of the human species. Important local, national, and international issues and policies related to biodiversity and conservation will be discussed. For non-science majors. Satisfies Arts and Sciences Core Science requirement.

**BIOL 1360 - Concepts of Biology (3)**

A one-semester course covering scientific methodology and the basic concepts of biology ranging from the chemical to the ecological levels of organization. For non-science majors. Satisfies Arts and Sciences Core Science requirement.

**BIOL 1400 - Biology of Health and Disease (3)**

Topics include: nature of life, chemical basis of life, basic foodstuffs, vitamins, diseases caused by microbes, plants, and animals, drugs and the mind, and biology and the future of humanity. For non-science majors. Satisfies Arts and Sciences Core Science requirement.

**BIOL 1410 - Biological Basis of Health (3)**

This SLU Inquiry course examines relationships between basic biological information and a wide range of health-related topics and issues. Topics include: the chemistry of life and nutrition; molecules, cells and metabolism; diseases caused by bacteria and viruses; effects of drugs. For non-science majors. Satisfies Arts and Sciences Core Science requirement.

**BIOL 1450 - Drugs We Use and Abuse (3)**

This course surveys the effects that legal and illegal biologically/pharmacologically-active compounds/drugs have on the brain, central nervous system, and other organ systems. For non-science majors. Satisfies Arts and Sciences Core Science requirement.

**BIOL 1460 - Exercise and Health (3)**

The course will explore exercise metabolism, how the body responds and adapts to exercise, and the health implications of physically active and sedentary lifestyles. For non-science majors. Satisfies Arts and Sciences Core Science requirement.

**BIOL 1500 - Plants and People (3)**

This SLU Inquiry course will give students an appreciation of the importance of plants in human society. An overview of plant form and function, investigates

**BIOL 3220 - Biology of Invertebrates (4)**

Lecture three hours, laboratory three hours per week. This course surveys the invertebrate phyla with emphases on evolution, comparative morphology, life



**BIOL 4100 - Natural History of Vertebrates (0-4)**

Lecture three hours, laboratory three hours per week. Prominent morphological, behavioral, physiological and ecological features of fishes, amphibia, reptiles, birds, and mammals. Week-end field trips are required.

**BIOL 4110 - Natural History (1)**

An extended field trip to study the ecology of vertebrates, and the ecological features of fishes, amphibians, reptiles, birds, and mammals. Week-end field trips are required. This course does not fulfill a B.Sc. area requirement.

**BIOL 4120 - Field Botany (5)**

This field-based course introduces students to the diversity of plant communities in the Ozark Mountain region of Missouri and to the tools



**BIOL 4700 - Molecular Biology (3)**

A study of genes and genomes, and the processes that control their expression. Special emphasis will be placed on techniques used to analyze and manipulate nucleic acids and proteins, including bioinformatics approaches.

**BIOL 4720 - Cancer Biology (3)**

This course focuses on the molecular, cellular, and genetic characteristics of cancerous tissues; cancer epidemiology, diagnosis, and therapies will also be discussed. The course is in lecture format with some classes reserved for student presentations and discussion of primary research articles.

Prerequisites are BIOL-3020 and BIOL-3040; BIOL-3030 is recommended.

**BIOL 4750 - General Ecology (0-4)**

Lecture three hours, laboratory three hours per week. An introduction to the science of ecology: study of general theories, models, and problems in population, community, and ecosystem levels. Prerequisites: BIOL 1260 and 1265 or BIOL 1060; CHEM 1120



**BIOL 5780 - Molecular Phylogenetic Analysis (3)**

This course is designed to give students the knowledge and technical competence necessary for working with molecular phylogenetic data. Students will learn how to edit and align sequence data, and will explore how alternative alignments affect phylogenetic reconstructions. They will learn how to access and download data from online databases such as Genbank and Tree Base. Differing analytical approaches will be presented and discussed, including current and ongoing controversies in the primary literature. Students will gain experience using numerous software packages for analyzing data, testing constraints, choosing likelihood models, assessing support and exploring character evolution.

**BIOL 5800 - Research Colloquium (0-1)**

The course is designed to provide practice with oral communication of scientific studies. The format involves the design and execution of an oral presentation and students will be assessed by the instructor and classmates. Presentations on student research projects and proposals will be open to all members of the department. No prerequisites.

**BIOL 5810 - Department Seminar (0-1)**

Selected topics in Biology. Attendance and participation required for all M.S. and M.S.(R) students in Biology. Offered every semester.

**BIOL 5820 - Graduate Seminar/CMR (1-2)**

In depth analysis of one or two topics of current importance to cellular and molecular biology and the regulation of biological processes will be developed each semester. Students will present a lecture building on some aspect of the topic being analyzed. The focus is on skills of literature analysis, lecture organization, and oral presentation as well as on learning about a specific discipline related topic. Offered every semester.

**BIOL 5840 - Graduate Seminar in Ecology, Evolution and Systematics (2)**

Readings and discussions of current literature in areas related to ecology, evolution, and systematics. Students are encouraged to present research plans and report on research progress. Each semester several topics will be examined in depth. Offered every year.

**BIOL 5850 - Floristic Taxonomy (1)**

This weekly seminar provides an overview of Vascular Plants. The seminar will cover several crown orders of the monocots, including grasses and relatives, and begin the Eudicots. Weekly presentations include a summary of all relevant information (molecular, chemical, anatomical, embryological, morphological, ecological, geographical, historical/paleontological, etc.) about the plant group under consideration, review of the classification/phylogeny of the group, examination of fresh and/or preserved specimens, and discussion of relationships, human uses, and other relevant aspects of the biology of that group.

**BIOL 5860 - Scientific Communication Practicum (1)**

The course is designed to provide practice with written communication of scientific studies. The course includes assignments of documents that are commonly used in scientific discourse. The objectives of each assignment will be discussed in group meetings, and students will meet with the instructor individually to review the documents. No prerequisites.

**BIOL 5870 - Advanced Biometry (3)**

Graduate level course that will cover major aspects of the design and analysis of research studies in the life sciences. The purpose of the course is to provide the student with sufficient knowledge as to be able to design and analyze experiments that will most properly answer relevant questions in their fields. Topics will include, but not limited to, historical, philosophical, and ethical issues, statistical techniques, and computer applications. Students enrolling in this course must have at least one semester of calculus and one semester of statistics or probability and are familiar with analysis of variance techniques.

**BIOL 5970 - Research Topics (1-3)**

Prior permission of guiding professor and department/program chairperson required. Offered every semester.

**BIOL 5980 - Graduate Reading Course (1-3)**

Prior permission of guiding professor and department/program chairperson required. Offered every semester.

**BIOL 6040 - Current Top:Developmental Bio (3)**

**CHEM 1050 - Basic Chemistry (3)**

Designed for students who intend to take CHEM-1110 but do not have the background or mathematical skills required to enter directly into CHEM-1110. Topics include nomenclature, the scientific method as applied in chemistry, basic atomic theory, gas laws, equilibrium and chemical calculations and important classes of chemical reactions. Fall semester.

**CHEM 1060 - Intensive Basic Chemistry (0)**

This course is a condensed version of CHEM-1050. This course is offered for the second half of the fall semester only. Registration is by invitation only. Students who start the fall term in CHEM-1110, and make C-, D, or F at mid-

**CHEM 3100 - The Chemical Literature (1)**

Introduction to chemical literature and related informational retrieval

**CHEM 5000 - Intro to Chemical Research (1)**

This course will provide new, incoming graduate students with instruction on how to perform research in our department. Lectures will involve how to pick research mentor, database searching and journal capabilities, how to write an abstract, how to give oral and poster presentation, research ethics, and chemical safety.

**CHEM 5150 - Stat Meth of Phys Scientists (3)**

This course presents many of the important statistical methods used in physical sciences with a focus on applications important to engineering, chemistry, and physics. Errors, uncertainties, and error analysis in physical measurements, probability theory, probability density functions, moments of distributions, statistical parameters, statistical tests, least squares, chemometrics, electronic noise and noise reduction, and control charts are all discussed. Student should have taken Instrumental Analysis or equivalent

**CHEM 5200 - Analytical Chemistry II (3)**

This course will examine instrumentation required analytical determinations. We will take both a broad and a more detailed look at instrumental methods for chemical analysis. We will study a broad range of chemical analysis methods, including chromatographic, electrochemical, optical spectroscopic, and mass spectral methods. Time permitting we will also touch on x-ray, surface and few more esoteric techniques. We will also learn some of the more detailed electronic and engineering aspects of chemical instrumentation.

**CHEM 5230 - Mass Spectrometry (3)**

This is a graduate level course focused on the theory and application of mass spectrometry. There will be a special emphasis on biological analyses using mass spectrometry. This course will focus on a general theory and instrumentation of moving ions in the gas phase; quantitation and applications of mass spectrometry. Student should have taken Instrumental Analysis or equivalent. Offered in the fall of even years.

**CHEM 5250 - Bioanalytical Meth Analysis (3)**

This course will focus on analytical techniques and methodologies that are used to monitor biologically important compounds in various matrices. Topics will include the use of enzymes in bioassays, immunoassays involving antibody-antigen interactions, mass spectrometry in proteomics, capillary electrophoresis for genomics, and microscale instrumentation for quantitative determinations. Student should have taken Instrumental Analysis or equivalent. Offered every other Fall semester.

**CHEM 5260 - Analytical Separations (3)**

This course focuses on chromatographic and electrophoretic separations. Topics include general plate theory, the principles and optimization of gas chromatography, liquid chromatography, supercritical fluid chromatography and capillary electrophoresis, and the principles of the detection systems utilized in these separation techniques. (Offered every Spring semester.) Student should have taken Instrumental Analysis or equivalent.

**CHEM 5270 - Electroanalytical Chemistry (3)**

This course is designed to introduce you to the fundamentals of electrochemistry and to discuss electroanalytical techniques. Topics to be covered include: chronoamperometry, cyclic voltammetry, scanning electrochemical microscopy, spectroelectrochemistry, electrochemiluminescence, and electrochemical sensors.

**CHEM 5290 - Special Topics (3)**

Scheduling in a given semester depends on the availability of an instructor and anticipated enrollment. (Offered occasionally.)

**CHEM 5299 - Intro to Analytical Research (1-3)**

Advanced laboratory individually planned to afford opportunities for special training, or as an introduction to research in analytical chemistry. (Offered every semester.)

**CHEM 5300 - Mathematical Techniques in Chemistry (3)**

Includes introduction to differential equations, group theory, matrix algebra and vector analysis as applied to Chemistry. Prerequisite: MATH 1520.

**CHEM 5340 - Advanced Thermodynamics (3)**

The subject matter of this course entails advanced chemical thermodynamic. The four laws are recalled from Modern Thermodynamic perspective. The major component of the course is Statistical Thermodynamics where the four laws are restated from microscopic point of view. Statistical interpretation of equilibrium constant is given. Finally, laws related to the workings of far-from equilibrium systems are summarized using Prigogine's minimum entropy production principle.

**CHEM 5350 - Elements of Surface/Colloid Sc (3)**

The chemical properties of interfaces will be the main focus of this course. Chemistry of gas-liquid, solid-gas, and solid-liquid interfaces will be discussed with emphasis on thermodynamic descriptions. Industrial applications of interfacial processes will also be discussed. Prerequisite(s): CHEM-3330 and CHEM-3340 or the equivalent. (Offered periodically)

**CHEM 5370 - Computational Chemistry (3)**

A description of the theory and practice of computational methods used in modern chemical research. Students gain knowledge of computational methods through classroom instruction and semester-long projects focused on a molecular system of their choice. Molecular calculations are performed using Gaussian 03 on a supercomputer.

**CHEM 5390 - Spec Top-Physical Chemistry (3)**

Scheduling in a given semester depends on the availability of an instructor and anticipated enrollment. (Offered occasionally.)

**CHEM 5399 - Intro to Physical Research (1-3)**

Advanced laboratory individually planned to afford opportunities for special training, or as an introduction to research in physical chemistry. (Offered every semester.)

**CHEM 5400 - Organic Spectroscopy (3)**

Scheduling in a given semester depends on the availability of an instructor and anticipated enrollment. (Offered occasionally.)

**CHEM 5440 - Bioorganic Chemistry (3)**

This course examines organic chemistry pertinent to molecules and reactions found in biology. The course material is arranged by major classes of biomolecules: peptides/proteins/enzymes/cofactors, carbohydrates, nucleic acids, fatty acids and polyketides, terpenes, catalytic antibodies, etc.

Prerequisite(s): one year of undergraduate organic chemistry (CHEM-2420 or CHEM-2440 or equivalent). (Offered every Spring in even years)

**CHEM 5450 - Advanced Organic Chemistry (3)**

Physical organic chemistry including molecular orbital theory, structure-activity relationships, stereochemistry, reactive intermediates, determination of organic reaction mechanisms. (Offered every Fall semester.)

**CHEM 5460 - Synthetic Organic Chemistry (3)**

Emphasis on modern synthetic methods, mechanisms and application to the synthesis of complex structures. (Offered every Spring semester.)

**CHEM 5470 - Principles of Medicinal Chem (3)**

This course examines the relationship between chemical structure and biological activity with an emphasis on drug design and modification. Specific drug classes which will be used as illustrative of this relationship include, cardiovascular drugs, anti-inflammatory agents, steroid hormones, and chemotherapeutic agents (antibiotics), among others. Fall semester.

**CHEM 5480 - Heterocyclic Chemistry (3)**

A broad survey of the synthetic approaches to, and reactions of the fundamental heterocyclic systems. (Offered occasionally.)

**CHEM 5499 - Intro to Organic Research (1-3)**

Advanced laboratory individually planned to afford opportunities for special training, or as an introduction to research in organic chemistry. (Offered every semester.)

**CHEM 5500 - Inorganic Chemistry (3)**

The development and foundation of the periodic classification of the elements and an introduction to the systematic study of the properties of the elements and their compounds. Fall semester.



**CHEM 5550 - Organometallic Chemistry (3)**

Key aspects of organometallic and metal cluster chemistry: rationalization of organometallic complexes using the eighteen-electron rule; metal carbonyl

**CMM 1200 - Public Speaking (3)**

Students are introduced to principles of effective public speaking and provided with opportunities to develop public speaking skills. In addition, standards of evaluation for public communication are established for use in evaluating their own and other's public speaking performances.

**CMM 1300 - First Year Dialogue (3)**

First-Year Dialogue is a discussion-based course designed to merge elements of first-year experience, college student transitions, and intergroup dialogue pedagogy. Using communication theory, the course engages students in dialogue processes to explore personal and social identities and determine how the identities impact the experience as a SLU student. No prerequisites.

**CMM 1400 - Film Criticism (3)**

Viewing and discussion of some short and several feature films; terminology discussion and exams; written reviews and responses to film discussion; defining of film as an art. Prerequisite(s): ENGL-1900 or ESL-1900

**CMM 2000 - Communication Theory (3)**

Examines the problems that communication researchers attempt to solve by theorizing effectively. Topics include the relation of theory to research and practice, and different ways of theorizing, such as covering laws, systems, and social constructionist approaches. Prerequisite(s): CMM-1000

**CMM 2100 - Journalism: News Writing (3)**

Introduces basic techniques of gathering, writing, and editing news; discusses newsroom operations, decision making, and ethics; includes frequent in-class and out-of-class writing assignments. Prerequisite(s): ENGL-1900 or ESL-1900.

**CMM 2120 - Message Design (3)**

Message Design explores the process of analyzing audiences, needs, and situations to construct strategically appropriate messages. This course emphasizes writing skills and the process of analyzing messages. This course draws upon rhetorical theories and their practical applications.

**CMM 3200 - Organizational Communication (3)**

Discusses basic theories and concepts related to the study of communication in organizations. Considers a variety of theoretical approaches to the study of organizational settings, as well as specific organizational communication

**CMM 4060 - Seminar: Politics, Rhetoric, and Culture (3)**

This course examines the relationship between politics and rhetoric. Does communication reflect political reality or create it? What are the political effects of different rhetorical styles? We will examine classical writings on rhetoric as well as contemporary democratic and rhetorical theory.  
Prerequisite: junior-level standing or permission of instructor.

**CMM 4070 - Social Justice Communication (3)**

This course focuses on how communication can address real-world social justice issues. Students will develop critical attention to and deeper imagination of social justice issues, creative strategies for responding to those issues, and practical communication skills for participating in and promoting a more socially just world.

**CMM 4100 - Multiplatform Journalism (3)**

This course fosters students' journalism skills across platforms; students will

**CMM 4700 - Advertising Research and Strategic Planning (3)**

Discusses use of primary and secondary research to develop objectives and strategies for an integrated advertising and promotion plan. Research methods used may include focus groups, observation, structured interviews, mall intercepts, and tested questionnaires. Prerequisite(s): CMM-2800 and CMM-3600 or CMM-3700 or MKT-3400

**CMM 4720 - NSAC Advertising Competition (3)**

Students participate in annual American Advertising Federation competition. They work as an advertising agency preparing research, media, creative, public relations and event marketing plans, and preparing plans book and making client presentation for national competition. Prerequisite: CMM 4700

**CMM 4800 - Introduction to the Ethnography of Communication (3)**

This course will cover the ethnography of communication as a method (data collection and data analysis techniques) and methodology (the theoretical tenets that will guide the study of cultural communication). Students will learn how to use ethnographic research methods and write up their own ethnographic report. Pre-requisites: CMM 2000 & CMM 2800 or instructor's permission.

**CMM 4810 - Digital Storytelling (3)**

As a cultural practice digital storytelling is a way to learn about and represent the narratives existing within communities. This course teaches the theoretical and practical skills needed to create a digital story: (1) qualitative research methods, (2) narrative writing, and (3) digital production. Prerequisites: CMM 2500 and CMM 2800

**CMM 4910 - Internship (1-6)**

Work experience with local business or non-profit organizations in the student's area of communication interest. Instructor permission required. Prerequisites: CMM 1000, CMM 1200, and either CMM 2100 or CMM 2120

**CMM 4960 - Senior Capstone (3)**

Students will engage in a culminating project synthesizing the theories, research methods, and applications of Communication major coursework. Projects will showcase creativity, creative thinking, and the ability to solve a problem and/or address an important and significant issue in a way that demonstrates knowledge/skill mastery. Prerequisite(s): CMM-2800

**CMM 5000 - Graduate Study of Comm (3)**

An introduction to both the responsibilities and skills required of graduate students in Communication, and to the perspectives and theories that guide the study of the communication process in interpersonal, small group, organizational, intercultural, and mass communication contexts.

**CMM 5010 - Reading Fndtns in Comm Theory (3)**

Engages students in a multi-theoretical examination of the communication process through the reading, written analysis, and discussion of books and historical importance in the discipline.

**CMM 5020 - Interpersonal Communication (3)**

Advanced study of human communication processes in dyadic and small group relationships. Application of related communication theory to the analysis of relational interaction across contexts. Study of the 'self and the other' as a communication system. Individual research required.

**CMM 5050 - Rhetorical Theory & Criticism (3)**

The critical analysis of public discourse, including speeches, written works, social movements, and forms of popular culture. Students will discuss rhetorical criticism as a research method in communication.

**CMM 5200 - Organizational Communication (3)**

Advanced study of formal and informal communication in the organizational context. Students review, discuss, and critique research and theory in organizational communication with the goal on conducting a limited research project. Theoretical approaches covered in this course include classical, human relations, human resources, systems, cultural, critical, postmodern, and feminist theories.

**CMM 5300 - Culture & Public Dialogue (3)**

Study of the theory and practice of dialogue in public and private, cultural and intercultural settings. Students will understand major theorists of dialogue, and analyze actual attempts at dialogic communication in special difficult contexts involving conflict, prejudice, and political ideologies.

**CMM 5340 - Language & Cultural Diversity (3)**

This course is designed to introduce students to the study of language and provide an opportunity to examine how language influences culture and cultural influences language. Through the study of language in cultural contexts, the student will better understand the significance that language and communication have in the construction of culture.

**CMM 5800 - Res Methods in Communication (3)**

An introduction to the research process in the study of communication. Emphasis is on formulating research questions, methods of data collection, data management, and data analysis to help students become more skillful researchers and more knowledgeable interpreters of others research.

**CMM 5810 - Digital Storytelling (3)**

Digital Storytelling explores the practical and theoretical components of cultural reporting and non-fiction narrative. This course involves employing the key skills needed to create multi-media digital stories: (1) qualitative research methods, (2) narrative writing, (3) critical thinking and (4) technical production.

**CMM 5820 - Advanced Research Methods (3)**

Introduces methods commonly used by scholars in the humanities and social sciences to study a wide range of cultural texts and practices. Discusses some of the theoretical differences among the most common approaches to cultural studies. Readings include representative works by scholars in communication, sociology, history, and literature.

**CMM 5890 - Applied Project (3)**

Credits taken by students completing an Applied Project.

**CMM 5980 - Graduate Reading Course (1-3)**

Investigation of a specific and focused problem in communication, to be conducted with the supervisor of a full-time faculty member in Communication.

**Computer Science (CSCI)****CSCI 1010 - Introduction to Computer Science: Principles (3)**

A broad survey of the computer science discipline, focusing on the computer role in representing, storing manipulating, organizing and communicating information. Topics include hardware, software, algorithms, operating systems, networks.

**CSCI 1020 - Introduction to Computer Science: Bioinformatics (3)**

An introduction to computer programming motivated by the analysis of biological data sets and the modeling of biological systems. Computing concepts to include data representation, control structures, text processing, input and output. Applications to include the representation and analysis of protein and genetic sequences, and the use of available biological data sets.

**CSCI 1030 - Introduction to Computer Science: Game Design (3)**

Introduces the design of computer and video games. Students learn the practical aspects of game implementation using computer game engines and 3D graphics tools, while simultaneously studying game concepts like history genres, storylines, gameplay elements and challenges, and the design process. No computer science background required.

**CSCI 1040 - Introduction to Computer Science: Mobile Computing (3)**

An introduction to programming based on the development of apps for mobile devices such as phones and tablets. Students will learn to design an effective user interface, to interact with device hardware and sensors, to store data locally and access Internet resources.

**CSCI 1050 - Introduction to Computer Science: Multimedia (3)**

An introduction to computer programming, motivated by the creation and manipulation of images, animations, and audio. Traditional software development concepts, such as data representation and control flow, are introduced for the purpose of image processing, data visualization, and the synthesis and editing of audio.

**CSCI 1060 - Introduction to Computer Science: Scientific Programming (3)**

**CSCI 1070 - Introduction to Computer Science: Taming Big Data (3)**

An introduction to data science and machine learning. Fundamentals of data representation and analysis will be covered, with a focus on real-world applications to business intelligence, natural language processing, and social network analysis.

**CSCI 1080 - Introduction to Computer Science: Web Development (3)**

The technology of the web, from the structure of the Internet to the design of web-pages. Students will learn Internet standards for encoding information,

**CSCI 4550 - Advanced Operating Systems (3)**

Parallel processes; processor problems; linear address space and tree structured spaces of objects; resource allocation, queuing and network control policies; system balancing and thrashing; job allocation and process scheduling; multiprogramming systems; protection mechanisms for accessing

**CSCI 5500 - Operating Systems (3)**

Theory and practice of operating systems, with hands-on emphasis on one of the UNIX family of operating systems. Processes, processor scheduling, virtual memory, parallelism and concurrency, race conditions, file systems, networking models, sockets programming, as well as a general focus on operating systems mechanisms and abstractions. Offered occasionally.

**CSCI 5550 - Computer Networks (3)**

A graduate-level introduction to the concepts and principles of computer networks, including the basic technologies of a network and how these systems interact. Focus includes the design and implementation of network software that transforms raw hardware into a richly functional communication



**EAS 1010 - Earth Systems I-The Solid Earth (1-3)**

This course covers the interactions between land, water, air, and life with special emphasis on humans and the environment. EAS-1010 focuses on the

**EAS 1380 - Missouri Climate (3)**

This course is an in-depth look into the physical processes which affect the climate of Missouri. Students working in teams will use actual observations to examine the possible relationships between climate phenomena (i.e. El Nino, La Nina, Pacifica Decadal Oscillation, teleconnections, and global warming) and the weather patterns over Missouri. Fulfills three hours of science requirement. Fall semester.

**EAS 1400 - Energy Resources for a Sustainable Future (3)**

**EAS 3250 - Global Change (3)**

Fundamentals of climate physics, global and regional scale average solar and terrestrial radiation regimes and respective radiation balances; radiation instruments of roof station; hydrologic cycle and water balance; energy balance for atmosphere, ground and total earth system; heat transfer in ocean and ground; paleoclimatology; climatic change. Fulfills three hours of science requirement. Spring semester.

**EAS 3310 - Paleontology (3)**

Lecture three hours, laboratory two hours per week. Classification, anatomical structure and geological history of invertebrate fossils.

**EAS 3330 - Physical Meteorology I (3)**

The study of the physical principles underlying atmospheric processes of dry and moist air. Additional topics include the analysis of atmospheric stability and thermodynamic diagrams. Prerequisite(s): MATH-1520, PHYS-1610/PHYS-1620, EAS-2440, or permission of the instructor.

**EAS 3340 - Physical Meteorology II (3)**

The study of cloud microphysics and radiative transfer in the atmosphere. Topics include absorption and emission of radiation, solar and terrestrial radiation, cloud formation, heat and energy transfer, and optical phenomena.

Prerequisite(s): PHYS-1630/PHYS-1640, a 'C' or better in EAS-3330, or permission of the instructor. Co-requisite: MATH-2530.

**EAS 3350 - Surface Water Hydrology (3)**

Fundamentals of precipitation, runoff, evaporation, and effects that various geomorphological and geological features have on these processes. Temporal and spatial variability of stream flow and flooding as influenced by both natural and cultural factors. Normally offered in Spring semester. Prerequisite(s): EAS-1010 and EAS-1030.

**EAS 3400 - Soils- Formation, Properties, Identification, and Current Issues (3)**

This course covers the physical-, chemical-, and biologically related properties

**EAS 4220 - Synoptic Meteorology II (3)**

Continuation of the laboratory study began in EAS-4220. Topics include thermodynamic diagrams, sounding analysis, stability indices, isentropic analysis, severe local storms and numerical weather prediction as a forecasting tool. Prerequisite(s): MATH-2530, a 'C' or better in EAS-4200, or permission of the instructor. Students in the B.S. program must take EAS-4450 concurrently.

**EAS 4230 - Micrometeorology (3)**

Physical relations between profiles of temperature, moisture and wind in the atmospheric boundary layer, influence of low-level atmospheric turbulence, diffusion, and heat transfer processes on the boundary layer. Spring semester.

**EAS 4250 - Project in Environmental Science (1-6)**

This course will be lecture, field and laboratory based. The goal will be to discuss local and global environmental issues important to society and allow students to acquire first-hand knowledge of such issues in the laboratory and in the field. Lectures will emphasize the methods of scientific analysis, data collection, library research, identification of environmental problems and possible solutions, report writing, and presentation of results. Several case studies will be reviewed in detail as needed.

**EAS 4260 - Environmental Geophysics (3)**

Lecture three hours per week. Geophysical techniques for exploration and characterization of shallow structure and media in the geosciences. Includes gravity, magnetic, seismic, electrical, borehole and ground-penetrating radar methods. Alternate Spring semesters.

**EAS 4280 - Environmental Geochemistry (3)**

Lecture three hours per week. Application of geochemical principles towards the understanding of chemical processes occurring at or near the Earth's surface. Prerequisite(s): CHEM 1110, EAS 1010, and EAS 1030. (Offered every Spring in even years)

**EAS 4300 - Structural Geology (3)**

Lecture three hours per week. Description of structures in sedimentary, igneous and metamorphic rocks at scales ranging from atomic to continental. Introduction to stress, strain, deformation mechanisms, and techniques of kinematic and dynamic analyses. Alternate Spring semesters.

**EAS 4310 - Structural Geology Laboratory (1)**

Laboratory focuses on map interpretation, collection of structural data, and geometrical techniques for solving structural problems. Half-day and weekend field trips are an integral part of the laboratory.

**EAS 4320 - Climate Change & Variability (3)**

The analysis of the fundamental principles and techniques used for climate





**EAS 5490 - Microwave Remote Sensing: SAR principles, data processing and Applications (3)**

This course introduces SAR principles, data sources, data processing chain, and SAR applications in measuring earthquake deformation, land subsidence and building sinking, and tree height estimation, DEM generation, and monitoring environmental issues. These different topics will be covered through a series of stepwise exercises involving different kinds of SAR data.

**EAS 5500 - Scientific Communication (3)**

Principles of effective writing for a scientific audience; the structure of reports, papers and communications; techniques for the organization and delivery of results for written, oral, and poster presentations.

**EAS 5510 - Seismic Exploration Methods (2)**

Exploration for natural resources using seismic waves; refraction and reflection methods and interpretation; elementary seismic data processing. Offered alternate years.

**EAS 5520 - Seismic Exploration Lab (1)**

Laboratory and field problems two hours per week. Collection and interpretation of seismic data; application of the computer to data interpretation. Offered in alternate years.

**EAS 5540 - Potent & Elect Exploratory Methods (3)**

Earth's gravity, magnetic and natural electrical and electromagnetic fields; density and magnetic and electrical properties of rocks; gravity, magnetic and electrical methods of exploration. Offered occasionally.

**EAS 5560 - InSAR (3)**

This course focuses on providing application oriented forum on InSAR for geoscientists. Principles of InSAR, DInSAR, timesAR are introduced through hands-on lab work on measuring earthquake deformation, volcanic unrest, land subsidence due to extraction of groundwater, oil, gas, and coal mining using both commercial and open-source software tools.

**EAS 5600 - Atmospheric Chemistry (3)**

Focuses on chemical and physical processes that determine the composition of the troposphere and stratosphere. Emphasis is on regional and global-scale processes and the impact of global warming and climate change on these processes. Prerequisite(s): MATH-253. (Calculus III) or equivalent and CHEM-1125 (General Chemistry II) or equivalent, or permission of instructor.

**EAS 5610 - Satellite Meteorology (3)**

Satellite instrumentation; rectification, analysis and interpretation of satellite radiation measurements and cloud photographs; use of these data in the solution of specific meteorological problems. Offered every other Fall semester.

**EAS 5650 - Radar Meteorology (3)**

Fundamentals of a pulsed Doppler and non-Doppler radar. Velocity and range folding. Doppler radar display and signature interpretation. Characteristics of convective storms and severe weather signatures. Offered every other Spring semester.

**EAS 5700 - Convection in the Atmosphere (3)**

Derivation of consistent equations to study thermal convective phenomena in the atmosphere, the interaction between convective elements and their environments, simulation of thunderstorms and arrangement of convection. Offered every other Fall semester.

**EAS 5720 - Seismological Instrumentation (3)**

Lecture two hours, laboratory one hour per week. Physical principles underlying design and operation of the seismograph. Selection of the seismograph for specific problems; calibration and response characteristics. Laboratory practice in assembly, installation and calibration of modern seismographs. Offered in alternate years.

**EAS 5750 - Land-Atmosphere Interaction (3)**

Principal physical and dynamic processes governing exchanges of mass and energy among soil, vegetation, bodies of water, and overlying atmosphere: precipitation, evapotranspiration, infiltration, snowmelt, and surface-runoff. Parameterization of these processes in numerical models over large temporal-spatial scales.

**EAS 5800 - Synoptic-Mesoscale Circulation (3)**

This course will cover topics that are critical for understanding both large- and small-scale circulations in the atmosphere. Emphasis will be placed on developing a deep conceptual understanding and in-depth mathematical treatment of 'balanced' vertical motions, quasi-geostrophic theory, the Petterssen's development equation, the Sawyer-Eliassen ageostrophic circulation equations, jet streak dynamics, tropopause undulations, and isentropic potential vorticity concepts.

**EAS 5900 - Geoscience Journal Club (0-1)**

Registration in Journal Club is required every semester.

**EAS 5920 - Geoscience Journal Club (1)**

Registration in Journal Club is required every semester.

**EAS 5980 - Graduate Reading Course (1-3)**

A critical evaluation of literature concerning a specific problem.

**EAS 5981 - Independent Study (1-3)**

The Master's student undertakes an independent study of a chosen topic with the approval of sponsoring professor and the Program Director.

**EAS 6100 - Adv Top in Solid Earth Geophys (3)**

Physics of the earth's interior; emphasis on current research problems. Topics from seismology, geology, heat flow, geomagnetism, and tectonophysics. Offered occasionally.

**EAS 6190 - Adv Seminar in Geophysics (2)**

In-depth analysis of topics for Ph.D. students. Offered occasionally.

**EAS 6200 - Advanced Geomagnetism (3)**

Lecture course on spherical harmonic analysis of the main magnetic field of the earth and of transient magnetic variations. Processes in the ionosphere relating to geomagnetism; topics in paleomagnetism and magnetohydrodynamics included. Offered occasionally.

**EAS 6310 - Advanced Seismology I (3)**

Students will enroll in EAS-5300 and EAS-5310 and meet concurrently. In common with EAS-5300, students and faculty will choose papers from recent literature relevant to research topics in the department. Individual students will be assigned to present the papers to the group and lead group discussions.  $\checkmark$ Computer Supported Peer Review in Education $\checkmark$  will be used to collect feedback and grades from entire class. The presenters will evaluate the feedback received ( $\checkmark$ back-evaluations $\checkmark$ ). This will provide a mechanism for enhanced critical evaluation with a view to improving student's communication and review skills.

**EAS 6320 - Advanced Seismology II (3)**

Wave propagation in a spherical earth is the focus of this course. Wave equation solutions using free oscillations, WKBJ ray theory and surface wave are developed. Modern techniques for wave propagation in an earth with laterally varying media will be addressed. Theory for the inversion of seismic observations, e.g. free oscillation frequencies, surface wave dispersion or body wave travel times, for earth structure will be developed. Offered every Spring semester.

**EAS 6480 - Gen Circulation of Atmosphere (3)**

The nature and theories of the atmospheric general circulation, the energy and momentum budget of the atmosphere and the numerical simulation of the atmospheric general circulation. Offered occasionally.

**EAS 6590 - Numerical Methods of Atmos Sciences (3)**

Topics include the solution of linear algebraic systems, generalized Fourier Series methods of boundary-initial-value problems, finite difference solutions of partial differential equations and statistical techniques of geophysical data

**Electrical & Computer Engr (ECE)****ECE 4245 - Computer Networks Design (3)**

Introduction to modern computer communication networks. Topics include point to point communication links and transmission of digital information; packet switching; multiplexing and concentrator design; multi-access and broadcasting; Local Area Networks; Wide Area Networks; ATM Networks; and ISDN; architectures and protocols for computer networks; the concept of OSI reference mode; discussion of the OSI seven layers; physical interfaces and protocols; dat link control layer; network layer; design issues and modeling techniques; case studies. Co-requisite or Prerequisite: ECE 3215 and ECE 3216.

**English (ENGL)****ENGL 0900 - Introduction to Writing (3)**

Assists in the development of the basics of written expression and reading, including grammar, sentence and paragraph structure, thesis formulation, complexities of expository works. Pass/No Pass only.

**ENGL 1500 - The Process of Composition (3)**

Develops effective personal and expository prose writing skills, including methods of invention, organization, audience analysis, and style. Focuses on the compositional process.

**ENGL 1900 - Advanced Strategies Of Rhetoric and Research (3)**

Studies complex structures of language including its logical and persuasive possibilities. Emphasizes analytical reading, critical thinking, and research methodology skills. Prerequisite: ENGL-150, or equivalent.

**ENGL 1920 - Advanced Writing for Professionals (3)**

Advanced instruction in expository and argumentative writing with issues relevant to engineers. Not equivalent to ENGL-190. Restricted to students at Parks. Prerequisite: ENGL-150, or equivalent.

**ENGL 1940 - Advanced Writing (3)**

[Equivalent to ENGL 1900.] Designed for probable majors in English or Humanities. Through study of a subject tied to the research interests of the professor, this course emphasizes critical reading, argumentative writing, rhetorical awareness, and research. Serves as the first in a recommended sequence that includes ENGL 3750, and 4940. Pre-requisite: ENGL 1500 or equivalent. Offered regularly.

**ENGL 1950 - Advanced Writing about Urban and Social Problems (3)**

ENGL 195 Advanced Strategies of Rhetoric and Research (3). The Micah section of this course engages students in writing about urban problems and about the stages by which ordinary people come to participate in, or to resist, social injustice. Emphasizes skills in analytical reading, critical thinking, persuasive argumentation, and research. Fulfills the English 190 Writing core. No prerequisite.

**ENGL 2020 - Introduction to Literary Study (3)**

Introduces students to theoretical and methodological approaches to literary texts, including major terms, methods, and concepts.

**ENGL 2250 - Conflict, Social Justice and Literature (3)**

This course introduces literary study within the context and theme of Cultural Conflict and Social Justice. Through the reading of a wide variety of genres - including drama, poetry, and fiction - the course engages students in literary ways of knowing. Methods include close reading, comparative textual analysis, and argumentative writing.

**ENGL 2350 - Faith, Doubt and Literature (3)**

This course introduces literary study within the context and theme of Faith and Doubt. Through the reading of a wide variety of genres - including drama, poetry, and fiction - this course engages students in literary ways of knowing. Methods include close reading, comparative textual analysis, and argumentative writing.

**ENGL 2400 - Introduction to Drama (3)**

Introduces students to theoretical and methodological approaches to drama, including major terms, methods, and concepts.

**ENGL 2450 - Nature, Ecology & Literature (3)**

This course introduces literary study within the context and theme of Nature and Ecology. Through the reading of a wide variety of genres - including drama, poetry, and fiction - the course engages students in literary ways of knowing. Methods include close reading, comparative textual analysis, and argumentative writing.

**ENGL 2550 - Gender, Identity & Literature (3)**

This course introduces literary study within the context and theme of Gender and Identity. Through the reading of a wide variety of genres - including drama, poetry, and fiction - the course engages students in literary ways of



**ENGL 3110 - American Short Story (3)**

**ENGL 3492 - The Golden Age of Children's Literature (3)**

The Victorian and Edwardian eras have often been considered the "golden age" of children's literature, thanks to classics like Lewis Carroll's *Through the*

**ENGL 3890 - Writing Consulting: Forms, Theories, Practice (3)**

This hands-on, discussion-oriented course trains students to become staff writing consultants in University Writing Services. Coursework includes weekly writing, assigned reading, participating in projects, and engaging the diverse

**ENGL 4220 - Intro to Old Norse (3)**

Enables students to read Old Norse works in the original, thereby providing access to the myths and sagas of the Viking age. Offered regularly.

**ENGL 4230 - Literature of the Vikings (3)**

**ENGL 4620 - British Postmodernism (3)**

Studies contemporary British fiction, drama, and poetry through appropriate readings in postmodern theory. Offered regularly.

**ENGL 4630 - Nationalism and Irish Cultural Revival (3)**

Explores the conjunction of politics and aesthetics in the art of the Irish Literary Revival. Examines visions of the nation, cultural nationalism and Yeats' influence. Offered regularly.

**ENGL 4640 - Irish Modernism (3)**

Examines the development of Irish literature in English from 1890-1920. Places Irish writing within a wide range of cultural contexts, including revolutionary politics, aestheticism and decadence, and the rise of the 'national' theatre. Authors include Oscar Wilde, W.B. Yeats, Lady Gregory, J. M. Synge, James Joyce, Sean O'Casey and Elizabeth Bowen.

**ENGL 4650 - Contemporary Irish Literature (3)**

Analyzes the nexus of aesthetics and politics in contemporary Irish culture, including texts written by playwrights, poets, fiction writers, directors, cultural critics and historians. Offered regularly.

**ENGL 4670 - Contemporary Postcolonial Literature and Culture (3)**

Examines literary representations of social upheavals, post-independence

**ENGL 5110 - Literary Theory (3)**

Introduction to the conceptions of the literary text that have influenced the

**ENGL 6590 - Topics in 19th Cent Engl Lit (3)**

Studies in particular issues and developments in British literature of the nineteenth century.

**ENGL 6600 - Studies in Modernism (3)**

Selected figures, movements, and developments representative of modernisms in English in the first half of the twentieth century.

**ENGL 6610 - Twentieth-Century Fiction (3)**

Selected writers and works of fiction of the twentieth century.

**ENGL 6620 - Twentieth-Century Poetry (3)**

Selected figures, movements, and developments in poetry of the twentieth century.

**ENGL 6630 - Twentieth-Century Drama (3)**

Selected figures, epochs, and developments in literatures in drama of the twentieth century.

**ENGL 6650 - Twentieth Century Postcolonial Literature (3)**

This course will focus on postcolonial literature and film with attention to current critical theories and approaches. We will examine how novels, poetry, drama and films from Africa, Asia, and the Caribbean have impacted postmodern culture as a whole. We will look at the various approaches that have been used to study postcolonial literature and film, including Marxist, feminist and poststructuralist. We will discuss such questions as: how have postcolonial writers and filmmakers used literature and film as tools for social change? How have they chosen to represent their identities?

**ENGL 6690 - Topics in Litere of the 20th Century (3)**

Particular issues and developments in literatures in English of the twentieth century.

**ENGL 6700 - Early American Literature (3)**

**FREN 3250 - Contemporary French Culture (3)**

The study of trends in society, work, politics, education, the arts, and notions of leisure as they relate to the multi-cultural environment in France and to France's place within the European community. Study Abroad Only.

**FREN 4010 - French Culture and Civilization (3)**





**FREN 5290 - Women and Global Issues (3)**

In this class, we will explore how globalization is bringing to the fore issues that are affecting and shaping women's lives throughout the world. Through essays, various literary pieces and films, we will examine how dichotomies that are usually identified in feminist discourse take on a renewed life as increased interconnectedness that comes with globalization shapes religious, economic, cultural and political issues.

**FREN 5330 - French "Moralists" (3)**

This course attempts to define the 'moralist' and analyze the work of representative writers from the Renaissance through the 17th century in light of this definition. An introductory overview of thought and attitudes marking the Middle Ages is followed by the study of texts by Montaigne, Pascal, La



**FSTD 4610 - French Cinema (3)**

A history of French Cinema by movements and authors. MClas, Bunuel, Vigo, Gance, Renoir, Clouzot, Cocteau, Tati, Truffaut, Godard, Rohmer, Kurys, Berri, Chatiliez, Tavernier. Taught in French.

**FSTD 4620 - Adv. Acting: Special Topics (3)**

This course is structured around various topics which introduce advanced level students to particular performance techniques. Topics might include auditioning, acting for the camera, voice acting, creative dramatics, stage combat, etc.

**FSTD 4910 - Film Studies Internship (3)**

This course may be used as a substitute for the FSTD-4850 Capstone upon approval of the Film Studies Director.

**Geographic Information Science (GIS)****GIS 2170 - GIS in Civil Engineering (3)**

This course discusses the fundamental concepts of GIS, and the methods and software used to solve civil engineering programs. The course also covers skills to deal with remote sensing data, basic and differential GPS surveying to prepare students for today's growing business needs in civil engineering companies and government agencies. Students may only apply credits toward their graduation requirements from one of the following courses: EAS-2170, BIOL-4170, EAS-4170, or SOC-4650.

**GIS 4010 - Introduction to GIS (3)**

This class introduces concepts, science, and theory of GIS and provides hands-on learning experiences. After successful completion of the course, students will be able to demonstrate fundamental techniques of geospatial analysis and mapping. (Offered every fall.)

**GIS 4020 - Intermediate GIS (3)**

This course covers intermediate and advanced topics in GIS, including remote sensing for GIS, geospatial statistics and social, economic, and environmental aspects of GIS. Each subject is presented by a professor who specializes in the subject area. (Offered every spring.)

**GIS 4040 - Introduction to Remote Sensing (3)**

This course include fundamental knowledge on the physics of remote sensing; photogrammetry; multispectral, hyperspectral, and thermal imaging; RADAR; and LIDAR. Principles are reviewed in lectures, and lab assignments cover image processing, environmental modeling, and analysis. The course objective is to demonstrate applications of remote sensing in environmental sciences with software training in ENVI&IDL and SARscape. (Offered every fall.)

**GIS 4060 - Geospatial Methods in Environmental Studies (3)**

For students and professionals in Environmental Sciences, this course explores an integrated GIS and remote sensing approach to solve real-world environmental problems. Through hands-on projects, the course will also prepare students for today's growing business needs in innovative server-based GIS solutions, relational databases and web mapping in an enterprise environment. Geospatial methods to be discussed include: spatial analysis, web GIS, database design, management and data mining with integration of GIS, remote sensing and GPS, and various applications of the techniques with

**GIS 5090 - Programming for Remote Sensing/GIS (3)**

This course introduces introductory programming concepts in RS/GIS. By completing the course, students will be able to use and write scripts to customize RS/GIS applications. Students will choose one or more RS/GIS platform and explore some common functions, then use programming languages (IDL, Python, Java and PhP) to automate procedures, develop custom applications. Topics include ArcIDL, extending ENVI and IDL, designing program code to handle various coordinate systems, projections,

**GR 4550 - History of German Language (3)**

History of the German language will study the development of German from its earliest forms to contemporary German. Students will become familiar with linguistic terminology along with major linguistic and cultural changes that happened from Indo-European to Germanic to Old and Middle High German to contemporary German. This course will be taught in German.

Prerequisite(s): GR-3200

**GR 4600 - Beginning Middle High German Language (3)**

Students will become proficient in Middle High German grammar and pronunciation, as well as learn to translate Middle High German texts into English in addition to an introduction to manuscript studies and discussion of the role of memory in oral culture, the use of standardized-edited vs. authentic manuscript language. This course is taught in English, but knowledge of German required. Prerequisite(s): GR-3200

**GR 4650 - Wolfram von Eschenbach's Parzival: Gender, Race, and Otherness (3)**

In this course, student will read and critically reflect on Wolfram von Eschenbach's Parzival (ca. 1220). They will read the text in modern German. While this text is fictional, it is grounded in 'reality' and reflects upon its times and its discourses on politics, religion, race, gender, and otherness, the focus of this course. This course is taught in German, therefore knowledge of German required. Prerequisite(s): GR-3200

**GR 4700 - The Culture of The Weimar Republic (3)**

This course examines the various forms of rich artistic production that emerged in Germany during the 1920s. Topics covered include literary, filmic, and visual representations of war, urban landscape, the modern woman, as

**HCE 3210 - Superheroes & Social Justice (3)**

The great ethical issues in health care today can be dauntingly unfamiliar to new students. Ethical questions of medical research, the limits of technology, enhancement, reproduction, disability, personhood, and social justice have all been fruitfully discussed in the great American narrative medium of comics. Far from being a necessarily shallow medium, comics allows for a suspension of disbelief that renders philosophical thought experiments about morality not only accessible but also riveting. This course examines some of the best and most pertinent morality plays that the medium has to offer and uses these to introduce the student to the fundamentals of bioethics, and illuminate the practical implications for a modern health care ethics.

**HCE 3220 - The Desire to Dissect: Philosophical History of Anatomical Dissection (3)**

This course explores the historical and philosophical underpinnings of anatomical dissection in Western medicine. It begins with a comparative history of ancient Greek and Chinese medicine, proceeds to examine the medical and cultural development of anatomical dissection, and concludes with anatomical thinking as the root of modern medical knowing. Prerequisite: HCE 2010 or Junior or Senior Standing.

**HCE 3300 - Bioethics + Human Nature Film (3)**

This interactive course uses the medium of film to explore how medicine and biotechnology challenge definitions and conceptualizations of being human. The course will examine the social and cultural dynamics that influence approaches to bioethics in Spain and the United States. Students will consider the ethical dilemmas posed by such diverse practices as abortion, euthanasia, cognitive enhancement/manipulation, and genetic enhancement. The course includes field experiences in Madrid, Spain.

**HCE 4110 - Health Ethics, Race + Identity (3)**

This course engages issues of health populations, considering the possible unintended but still untoward effects that certain narrative and cultural constructions have for people. The course will attempt an appropriately rich

**HCE 6020 - Methods in Religious Ethics (3)**

A study of the hermeneutical significance of different methods in religious ethics and a critical analysis of the hermeneutical implications of these methods for the development of ethical theory.

**HCE 6040 - Interdisciplinary Research in Health Care Ethics (3)**

A study of the scope, concerns, and methods of interdisciplinary research in Health Care Ethics, including: interdisciplinary research methods with associated competencies; cross-cultural paradigms of person, community, and health; epistemological processes for interdisciplinary research; criteria for persuasion and ethical justification in interdisciplinary research.





**HIST 3160 - Eastern Europe (3)**

Survey of the lands and peoples between Germany and Russia, the Baltic to the Black Seas from the fall of Rome to the present. Emphasizes religious, cultural, political, and economic elements which have shaped Eastern Europe today, including the impact of outside forces such as the Byzantine, Ottoman, Habsburg, and Russian Empires.

**HIST 3170 - Colonial Latin America (3)**

A survey from the pre-Columbian period to the wars for independence.

**HIST 3180 - Modern Latin America (3)**

A survey from the wars for independence to contemporary Ibero-America.

**HIST 3190 - Mexico (3-4)**

Political, cultural and economic survey from Pre-Columbian period to the wars for independence.

**HIST 3200 - China to 1644 (3)**

From the embryo of the Middle Kingdom to the first confrontation with the west.

**HIST 3210 - China Since 1644 (3)**

From Manchu to Mao Tse Tung.

**HIST 3500 - Progressive Era to the Jazz Age, 1890-1920 (3)**

A survey of political, social, economic and cultural developments as American society transformed from a rural-agrarian society to an urban-industrial power and from isolationism to a major force in world affairs.

**HIST 3510 - Prosperity, Depression, and War 1920-1945 (3)**

The 1920's, the New Deal and World War II.

**HIST 3520 - Contemporary America, 1945 - Present (3)**

The Cold War, civil rights, Vietnam, Watergate, the technological revolution and modern society.

**HIST 3530 - U.S. Diplomatic Hist to 1900 (3)**

**HIST 3830 - Modern Middle East (3)**

The subject of this course is the history of the modern Middle East from the 17th century up to the present. The course will address political, social, and cultural history within the framework of an Islamic civilization and examine modern concerns such as nationalism, colonialism, statehood and impact of outside powers, and the response of the people of the Middle East to this challenge.

**HIST 3930 - Special Topics (3)**

Various topical courses offered from time to time.

**HIST 4900 - Seminar: European History (3)**

A limited enrollment seminar exploring a specific topic in European history. Discussion format based on close reading of primary sources.

**HIST 4901 - Sem: American History (3)**

A limited enrollment seminar exploring a specific topic in American history. Discussion format based on close reading of primary sources.

**HIST 4902 - Seminar: Non-Western History (3)**

A limited enrollment seminar exploring a specific topic in Non-Western history. Discussion format based on close reading of primary sources.

**HIST 6800 - Sem: Ancient/Byzantine Hist (3)**

Advanced research on a specific topic in late ancient or Byzantine history. Introduction to source collections, library resources, and other research tools.

**HIST 6810 - Seminar Medieval History (3)**

Advanced research in a specific topic in Medieval history. Introductions to essential source collections, library resources, source criticism, archival methods, paleography.

**HIST 6820 - Seminar: Early Modern European History (3)**

Introduction to research in Renaissance and Reformation Europe. Students become acquainted with research tools in Renaissance and Reformation history, to learn paleographic and codicological skills.

**HIST 6830 - Seminar in Mod European Hist (3)**

An opportunity to undertake advanced research, through primary and archival sources and secondary literature, in a specific area of Modern European history (1600 to the present).

**HIST 6840 - Seminar in American History (3)**

An introduction to advanced research in American history. Readings in secondary literature. Students will undertake research, using also primary and archival sources. Thematic and chronological topics.

**HIST 6850 - Seminar in Ancient History (3)**

This is a research seminar. Students will be required to produce a major paper based on original primary research.

**HIST 6870 - Research Seminar in World History (3)**

This research seminar in world history focuses on a particular theme of the instructor's choosing taken from the transregional, cross-cultural, and comparative dimensions of world history. The primary requirement of the course is a research paper (25 to 35 pages) based on primary and secondary sources that analyzes a topic within the thematic framework of the course. Other assignments aim to help students complete tasks essential to finishing the paper. The purposes of the course are to train students 1) in methodologies and sources 2) in producing research in world history. There are no prerequisites for the course.

**HIST 6900 - Professional Writing for Historians I (3)**

HIST 6900 is the first half (3 crs) of a two-semester course sequence designed to assist students in making the critical transition from being a student to becoming a scholar. The primary goals of the sequence are to orient students to professional expectations in the professorate and to develop a program of professional writing and dissertation research as efficiently and effectively as possible. More specifically, the courses aim to help students to conceptualize a dissertation, to fund a year of research from external sources, and to begin establishing a record of scholarship. As the first course in the sequence, HIST 6900 focuses on grant-writing and the dissertation prospectus, with the goal of having students submit at least one application for external funding and to finish the problem section of their prospectus. During the semester, the class also works on other professional development issues, such as networking and presenting conference papers. Offered every Fall.

**HIST 6901 - Professional Writing for Historians II (3)**

HIST 6901 is the second half (3 crs) of a two-semester course sequence designed to assist students in making the critical transition from being a student to becoming a scholar. The primary goals of the sequence are to orient students to professional expectations in the professorate and to develop a program of professional writing and dissertation research as efficiently and effectively as possible. More specifically, the courses aim to help students to conceptualize a dissertation, to fund a year of research from external sources, and to begin establishing a record of scholarship. As the second course in the sequence, HIST 6901 focuses on completion of the dissertation prospectus and article writing. Students are expected to revise fully at least one seminar paper they have written and submit it for publication to a reputable academic journal. During the semester, the class also takes up timely professional development issues, such as interviewing for jobs, writing a cover letter, and organizing a CV. Offered every Spring. Prerequisite: HIST 6900

**IAS 6010 - Interdisciplinary Seminar (0-1)**

Each semester, invited speakers from research programs in both academia and industry will give presentations on their work and IAS students will be expected to attend and engage in discussions with the speakers. The choice of speaker and research will be tailored specifically for the IAS program.

**IAS 6030 - Interdisciplinary Research (0-2)**

Each semester students will investigate, present, and discuss the current scientific literature pertaining to interdisciplinary research in science and/or engineering topics.

**International Studies (ISTD)****ISTD 1100 - Intro to International Studies (1)**

This is an introduction to the literature and themes of International Studies. It emphasizes intercultural awareness, cultural interaction, and problem solving in an international context. Offered every semester.

**ISTD 1200 - Foundations of International Studies (3)**

An introduction to the foundations of International Studies as an interdisciplinary field; disciplinary, thematic, and area studies approaches to understanding the world; basic research skills and methods. No prerequisite

**ISTD 2800 - International Seminar & Practicum (3)**

This course combines internationally-oriented interdisciplinary seminar-style instruction with a practical international component, such as a short-term study abroad/immersion. The course will emphasize a globalization-related theme or area/regional studies from an interdisciplinary perspective. No prerequisites.

**ISTD 2900 - Intercultural Sem & Practicum (1-3)**

This course develops and studies intercultural awareness, cultural interaction, and problem solving in an international context. International Studies is the interdisciplinary analysis of global processes that shape international trends and lives of human beings throughout the world. This course gives students a chance to further develop awareness of the methods and topics of International Studies through a broad, humanistic socio-political approach that will serve as a foundation for further international studies in numerous fields offered at Saint Louis University. Seminar-style instruction and discussion will be paired with a practicum element taking advantage of the course's unique format and structure.

**ISTD 4910 - Intern in International Studies (0-4)**

This course places emphasis on the integration of academic studies with professional practice oriented toward specific career goals. Students are responsible for setting up the internship under the direction of the advisor. Offered every semester.

**Italian (ITAL)****ITAL 1010 - Communicating in Italian I (0-3)****Integrated & Applied Sciences (IAS)**

**ITAL 3010 - Written Comm. in Italian I (0-4)**

Reading and analysis of authentic language materials to develop written

**ITAL 4020 - Oral Comm. in Italian II (3)**

Accuracy and fluency in oral expression in topics of particular interest and special fields of competence.

**ITAL 4200 - Dante's Divine Comedy (3)**

Analysis of one of the most celebrated and controversial works of Western literature. Particular emphasis on the formal aspects of Dante's poem, on the historical, philosophical and theological background, and how it still relates to our own world. No prerequisites. Course taught in English.

**ITAL 4250 - Middle Ages to Renaissance (1-3)**

The goal of the course is to have the students have a general idea of the major trends in the central centuries of Italian literature and culture. Taught in Italian. Prerequisite(s): ITAL-3020 or equivalent.

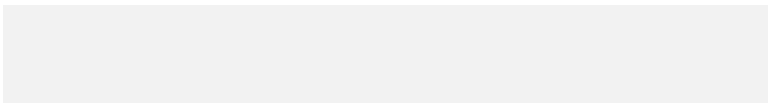
**ITAL 4300 - An Assembly Manual for the Perfect Prince (1-3)**

This is a course about perfect government, as it was imagined by the Italian writers from the 13th to the 18th Centuries. Taught in Italian.

Prerequisite(s): ITAL-3020 or equivalent.

**LLC 3200 - Israeli Culture: From the Birth of Zionism to the 21st Century  
(3)**

Introduction to modern Israel, its culture and people. From the birth of Zionism in nineteenth century Europe, to the ingathering of the Jewish people, the creation of the State of Israel, and on to the present. Topics include conflicts between Jews and Palestinian Arabs, between religious and secular Israelis and gender issues.







MATH 4430 - Non-Euclidean Geometry (3)

**MATH 6210 - Lie Groups and Lie Algebras (3)**

**MILS 4020 - Leadership in a Complex World (3)**

Explore the dynamics of leading in the complex situation of current military operations in the contemporary operating environment. Examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. You will also explore aspects of interacting with non-government organizations, civilians on the battlefield and host nation support. Significant emphasis is placed on your transition to officership, preparing you for your branch school and first unit of assignment. Prerequisite for this course is the successful completion of MILS-4010 or permission of the instructor.

**MILS 4200 - Sem in Leadership and Ethics (2)**

The curriculum in MILS-4200 is designed to focus on student (cadet) learning, rather than on any specific subject matter. Focusing on the cadet requires student-centered objectives and conscious attention to how the cadets interact with the subject matter presented. Learning occurs during class in the same way it does outside the classroom: Through both structured and unstructured experiences in which the cadets interact with the instructor, each other, and the instructional material. All seminar material is focused on experiential and participatory learning. Cadets meet independently with the instructor to determine both focus areas and instructional schedule. Instructional material includes a focus on the ethics of the military profession, an examination of various theories of leadership, and applied leadership and ethical decision making in historical settings.

**MILS 4220 - Leadership & Ethics (3)**

Identify and resolve ethical dilemmas. Refine counseling and motivating techniques. Examine aspects of tradition and law as it relates to leading as an Army officer.

**MILS 4500 - Modern American Military History (3)**

A survey of US military involvement beginning with the Treaty of Versailles following World War I and concluding with the current Global War on Terror. Students will follow a chronological study of crucial battles of World War II, Korea, Vietnam and conclude with in-depth case studies from Iraq and Afghanistan. The class focuses on both tactical and strategic lessons learned and the political and cultural influences that effect the way wars are fought. Prerequisite for this course is sophomore status and good standing in the ROTC program.

**Medieval & Ren Studies (MR)**

**MUSC 2030 - Applied Music: Guitar (1-2)**

Private studio lessons in guitar. An Applied Music Fee is required. Variable credit course: One credit hour, fourteen half-hour lessons per semester; two credit hours, fourteen one-hour lessons per semester. Appropriate technical exercises and repertoire are assigned individually. End of semester jury before a panel of music teachers is required.

**MUSC 2040 - Applied Music: Woodwinds (1-2)**

Private studio lessons in woodwind instruments. An Applied Music Fee is required. Variable credit course: One credit hour, fourteen half-hour lessons per semester; two credit hours, fourteen one-hour lessons per semester. Appropriate technical exercises and repertoire are assigned individually. End of semester jury before a panel of music teachers required.

**MUSC 2050 - Applied Music: Brass (1-2)**

Private studio lessons in brass instruments. An Applied Music Fee is required. Variable credit course: One credit hour, fourteen half-hour lessons per semester; two credit hours, fourteen one-hour lessons per semester. Appropriate technical exercises and repertoire are assigned individually. End of semester jury before a panel of music teachers required.

**MUSC 2060 - Applied Music: Strings (1-2)**

Private studio lessons in string instruments. An Applied Music Fee is required. Variable credit course: One credit hour, fourteen half-hour lessons per semester; two credit hours, fourteen one-hour lessons per semester. Appropriate technical exercises and repertoire are assigned individually. End of semester jury before a panel of music teachers required.

**MUSC 2070 - Applied Music: Percussion (1-2)**

Private studio lessons in percussion instruments. An Applied Music Fee is required. Variable credit course: One credit hour, fourteen half-hour lessons per semester; two credit hours, fourteen one-hour lessons per semester. Appropriate technical exercises and repertoire are assigned individually. End of semester jury before a panel of music teachers required.

**MUSC 2100 - Applied Music: Majors Only (1-2)**

Applied Music course taught by full-time music faculty. For admitted and declared Music Majors only, in process of completing required number of credits on major instrument. Private half-hour or hour-long lessons weekly; individualized, sequential instruction in classical repertoire and technique. No Applied Music lesson fee is attached to this course.

**MUSC 2260 - Music Computer Skills (3)**

Hands on instruction in the use of music software and hardware. Programs in music notation, music sequencing, and computer assisted instruction will be practiced and evaluated.

**MUSC 2270 - Music Theory I (3)**

The first of the four-semester sequence of intensive theoretical study required of all music majors. Students enrolled in this class should be literate musicians with considerable prior experience performing/reading music. Specific topics include review of basic principles of notation, major and minor scales, key signatures, intervals, triadic harmony, figured bass, melody and two-voice counterpoint, fundamentals of diatonic harmony, and part writing in two, three, and four voices. Course work includes lecture-discussion of chapters, assigned workbook pages, frequent chapter tests, sight singing practice, and weekly computer assignments in ear training. It is strongly recommended that non-pianists concurrently study class piano.

**MUSC 2271 - Aural Skills I (1)**

**MUSC 3060 - Applied Music: Strings (1-2)**

Private studio lessons in string instruments for majors only who have demonstrated required competencies in performance. An Applied Music Fee is required. One credit: thirteen half-hour lessons per semester. Two credits: thirteen one-hour lessons per semester. Departmental permission required.

**MUSC 3070 - Applied Music: Percussion (1-2)**

Private studio lessons in percussion instruments for majors only who have demonstrated required competencies in performance. An Applied Music Fee is required. One credit: thirteen half-hour lessons per semester. Two credits: thirteen one-hour lessons per semester. Departmental permission required.

**MUSC 3100 - Applied Music: Majors Only (1-2)**

Applied Music course taught by full-time music faculty. For majors only. Private half-hour or hour-long lessons weekly. No Applied Music lesson fee is attached to this course. Departmental permission required.

**MUSC 3270 - Music Theory III (3)**

**MUSC 3490 - Concert Band (0-1)**

The Concert Band consists of experienced musicians (flutes, clarinets, French horns, saxophones, oboes, bassoons, percussion) who perform traditional

**PHIL 3410 - Computer Ethics (3)**

This course examines the moral, legal, and social issues raised by computers and electronic information technologies for different stakeholder groups (professionals, users, business, etc.). Students are expected to integrate moral theories and social analysis for addressing such issues as intellectual property, security, privacy, discrimination, globalization, and community.

Prerequisite(s): PHIL-2050.

**PHIL 3420 - Environmental and Ecological Ethics (3)**

This course will survey a number of environmental problems, looking at philosophical and ecological approaches to the issues. Topics may include: the moral status of animals, plants, ecosystems and species; poverty vs. the environment; global justice; consumerism; motivating people to care for the environment; mass extinctions; global climate change. Prerequisite(s): PHIL-1050 and PHIL-2050.

**PHIL 3430 - Philosophy of Law (3)**

A critical survey of the major Western conceptions on the nature of law and on the relationship between law and morality.

**PHIL 3450 - Disaster Narratives (3)**

To help students reflect on the nature and implications of disasters, including disease, climate change, and war. We will consider disasters from the standpoint of their real-life effects upon human beings, both with respect to innocent victims caught by forces beyond their control and with respect to perpetrators of disasters.

**PHIL 3480 - Jewish Life: Bible to Middle Ages (3)**



**PHIL 4280 - Biology and Mind (3)**

Courses in physiological psychology say little about higher-level cognitive capacities, whereas cognitive psychology courses often ignore their neural underpinnings. In contrast, Biology and Mind employs a framework that combines neurobiological and cognitive considerations. Employing this framework, we first examine visual perceptual and imaging capacities, after which we explore philosophical issues concerning the conscious, causal, and creative aspects of such cognition. Prerequisite(s): PHIL-1050 and PHIL-2050.

**PHIL 4310 - Topics in Ethics (3)**

An in-depth examination of one or more topics in ethics. Topics might include: virtue ethics; metaethics; moral realism and anti-realism; well being; happiness; moral evil; moral responsibility; ethics and human nature; recent work in deontological ethics (and/or consequentialism); theories of practical reason; morality and the emotions; moral relativism; moral psychology; and God and morality. Prerequisite(s): PHIL-1050 and PHIL-2050.

**PHIL 4320 - Feminism and the History of Ethics (3)**

**PHIL 4870 - Systematic Survey (3)**

This course, principally for student in the College of Philosophy and Letters, serves as a 'capstone course.' Students write small papers on philosophy of human nature, epistemology, ethics, and philosophy of God and mutually criticize each other's papers. Finally, they produce their own full synthesis.

Prerequisite(s): PHIL-1050, PHIL-2050 and permission of the instructor.

**PHIL 5100 - Feminist Epistemologies (3)**

Topics such as the meaning of truth and knowledge, and the diversity of kinds and contexts of knowing. Offered annually.

**PHIL 5200 - Problems in Metaphysics (3)**

**PHYS 1340 - Physics II Laboratory (1)**

Laboratory in electricity, magnetism, wave motion, sound, optics and modern physics. Prerequisite(s): PHYS-1310. Corequisite(s): PHYS-1330.

(Offered every Spring)

**PHYS 1350 - Aviation Physics (0-4)**

Units and measurement; vectors; force and motion; energy; momentum; gravitation; forces of drag and lift; rotational motion; equilibrium of forces during flight; harmonic motion; selected topics in fluid mechanics and thermodynamics; electricity; electrical energy; magnetism; electromagnetic induction; linear and wave optics; atmospheric optics; laboratory experiments relating to the topics above. Fall and Spring semesters. Prerequisite: Knowledge of high school algebra and trigonometry.


**PHYS 1610 - Engineering Physics I (3)**

Calculus and vector approaches to study of kinematics, statics and dynamics; work and energy; impulse and momentum; circular motion and gravity; rotational motion and equilibrium; vibrations, waves and sound; heat; fluid mechanics; elasticity. Prerequisite(s): MATH-1510.

**PHYS 1620 - Engineering Physics I Laboratory (1)**

Laboratory experiments to illustrate and supplement material in PHYS-1610.

**PHYS 4410 - General Relativity (3)**





**POLS 2590 - Politics of the Middle East and North Africa (3)**

This course examines the modern politics of the Middle East and North Africa, emphasizing the years 1960 to 2010. Students who complete each of the written assignments for this course will gain a stronger understanding of the system of contemporary knowledge production about the region. No prerequisites.

**POLS 2600 - Introduction to International Political Economy (3)**

Explores the interaction of economic and politics in global affairs by examining Realist, Liberalist, and Marxist approaches. Special emphasis is placed on the political and economic dimensions of the postwar international monetary, financial, and trading systems. Topics include, globalization, foreign departments, multinationals, international development, and regional economic organizations.

**POLS 2610 - Introduction to Diplomacy (3)**

An exploration of diplomatic method and of its contribution to the conduct of international relations. Nature and characteristics of diplomacy. The negotiation process. Diplomatic immunities. Different types of diplomacy and their essential traits.

**POLS 2640 - International Terrorism (3)**

Terrorism as a major problem of world affairs; identifies different types of terrorism and analyzes their complex causes; examines policies and techniques used to combat terrorism.

**POLS 2650 - War & Peace in the Middle East (3)**

Analysis of the major issues of Middle East politics and of their effects on the course of international relations. Examination of the foreign policies of all the states of the region in their historical context. Discussion of current trends.

**POLS 2660 - Middle East/International Pol (3)**

Analysis of the major issues of Middle East politics and of their effects on the course of international relations. Examination of the foreign policies of all the states of the region in their historical context. Discussion of current trends.

**POLS 2691 - Theory and Practice of Human Rights (3)**

This course critically examines the historical and intellectual evolution of human rights, different approaches and interpretations and contemporary practice. Particular topics include human rights in historical and intellectual contexts of emergence, modern slavery, human trafficking, the rights of children, gender-based violence, torture and immigration and the rights of refugees. Prerequisite: POLS 1000 or 1600; or Instructor Permission.

**POLS 2700 - Issues in Political Philosophy (3)**

**POLS 3500 - East Asian Political Economy (3)**

This course explores the politics and processes of economic development in

**POLS 3780 - Disability Theory and Politics (3)**

This course applies insights from disability studies to Western political thought in order to examine the political nature of disability and the disabling nature of politics. In this course, students are exposed to varying definitions, cultural representations, social justice issues, human rights concerns, and bioethical debates related to disability.

**POLS 3790 - Topics in Political Theory (3)**

This course focuses in depth on selected thinkers and themes in political theory. Topics vary from semester to semester. Sample topics include Kant and Contemporary Theory, Theories of Political Action, Marx and Capitalism.

**POLS 3800 - The Structure of Poverty: Globally and Locally (3)**

This course examines the theoretical and empirical literature on the social, political, and economic structures that produce and perpetuate cycles of poverty. Students will get a first hand view of the structure of poverty as they engage in service learning projects at the well-established, nonprofit organization, Queen of Peace Center.

**POLS 3810 - Latin American-U.S. Relations (3)**

This course examines relations between the United States and the countries of Latin America. It focuses on both the history of US-Latin America relations as well as current issues. Topics range from economic relations and trade, security, drug trafficking, democracy and human rights, and the role of international organizations.

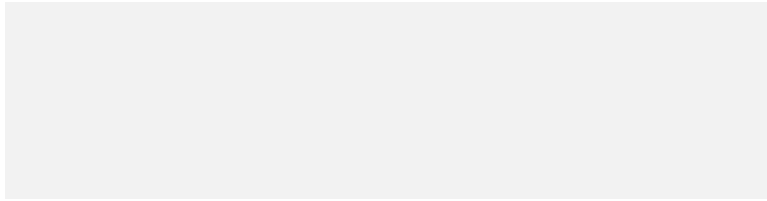
**POLS 3850 - Feminism in Action (3)**

This course addresses feminist activism on a wide range of issues (including domestic violence, rape, education and health care), and in a variety of forms (including writing, theater, public protests and coalition building). It gives



**POLS 4140 - Political Parties (3)**

This course examines the role of political parties and interest groups in the US representative process, elections and governance. Prerequisite: Junior Standing, POLS 2000 and either POLS 1100 or 1150; or Instructor Permission.



**POLS 4692 - Theories of World Politics (3)**

An advanced field seminar of international relations. Students analyze some of

**POLS 5300 - Law and Regulatory Policy (3)**



**POLS 5710 - Citizenship and Social Difference (3)**

This course will examine several aspects of the embodied nature of citizenship. Looking specifically at the interplay between citizenship (as an identity, legal status, and practice) and socially constructed identities predicated upon perceived bodily differences (gender, race, and disability), we will examine the following preliminary questions: Historically, how and why has the American state denied women, people of color, and people with disabilities citizenship status? Should civil, social, and political rights, which are contingent upon citizenship status, be universal rights, or group-differentiated rights? How should we expand/amend conventional definitions of citizenship and political participation to account for the lived experiences of women, people of color, and people with disabilities? How do social constructed and maintained inequalities- via sexism, racism, and ableism- influence the practice of citizenship? Overall, this course will attempt to integrate the insights from feminist theory, critical race theory, and disability studies into an analysis of what it means to be an American citizen.

**POLS 5730 - Contemp Political Ideologies (3)**

Development of modern political ideologies from mid-nineteenth century to present. Course focuses on ideas and social-political contexts associated with ideologies such as liberalism, Marxism, feminism, green politics, and liberation theology. Students consider the ramifications of viewing the world through particular ideological lenses.

**POLS 5740 - Marx's Capital (3)**

This class is devoted to the close reading of Volume 1 of Marx's CAPITAL, leading to an understanding of Marx's analysis of capitalism. Students with a background in political theory or philosophy will find that training to be helpful, but the course does not presuppose previous reading of the text. Offered periodically.

**POLS 5750 - American Political Thought: Meanings of Citizenship (3)**

Course examines ideas, institutions, and practices that have influenced the different meanings of citizenship experienced by different groups of Americans since the founding era. Readings include traditional sources in American political thought as well as writings of and about women, African Americans, Native Americans, other racial and ethnic groups, and poor people. Offered every year.

**POLS 5760 - Feminist Theory (3)**

Begins with the history of feminist scholarship from the pre-modern period and 19th century and proceeds to examine liberal, socialist/Marxist, radical, postmodern, and global feminism. Critical reviews of each theory will include issues of race/ethnicity, class, sexuality, and spirituality. Offered each fall semester.

**POLS 5770 - Feminist Epistemologies (3)**

Examination of how feminist scholarship has recontextualized epistemological issues in the philosophy of science, eco-feminism, hermeneutics, mysticism, and phenomenology. Students will write and present papers to demonstrate their integration of feminist theory and feminist epistemological issues within their own major fields of study. Offered each spring semester.

**POLS 5780 - Leadership and Culture (3)**

Course examines why certain leaders and styles of leadership have emerged in the cultures of particular social groups, ranging from electoral coalitions in American presidential campaigns, to African American churches, to transnational social movements and more. Particular emphasis is placed on the role of gender and race. (Offered: As needed/Periodically)

**POLS 5800 - Theories of Constitutional Interpretation (3)**

Course explores justification for the judicial review in the U.S. Why, in a democratic system, do unelected judges possess the power to invalidate laws approved through the democratic process? Students read historical, legal, philosophical, and empirical works and develop their own ideas about the role of constitutional courts. Prerequisite: one American politics course

**POLS 5840 - Global Health Politics & Policy (3-6)**

Course offers students political and analytical insights into the understanding of health policy issues in the U.S. and developing world. It examines how power relations and values affect choices on health issues. Of particular interest in this course will be the AIDS and Ebola pandemics in Africa.

**POLS 5850 - Policy Evaluation and Assessment (3)**

This course will provide students with an understanding of the complexity an scope of policy evaluation and analysis. Students will become familiar with tl concepts, methods, and applications of evaluation research. Students will al develop a toolkit to design traditional and cutting-edge evaluation methodolo and analysis.

**POLS 5910 - Graduate Internship (1-6)**

Interns work in government agencies/offices, nonprofit organizations, or interest groups under the guidance of a preceptor from the sponsoring organization and under a course director from the political science department who develop a graduate level professional experience following department internship guidelines. Every Semester.

**POLS 5911 - Graduate Capstone Internship (3-6)**

Interns work in government agencies/offices, non profit organizations, or interest groups under similar conditions to POLS 5910. In addition, interns prepare either a Policy Recommendation Paper, formal Grant Proposal, or Professional Quality Paper as specified in department capstone guidelines. Every Semester.

**POLS 5913 - Field Service (1-6)**

Field experience by the student as community organizer, research assistant administrative intern with a voluntary association, community organization or public or private agency. A paper evaluating the field experience is required. Offered every semester.

**POLS 5950 - Study for Special Exams (0)**

Required of all graduating MA students in their final semester.

**POLS 5960 - MPA Capstone (0-3)**

Student selects a project examining an issue of importance to St. Louis, the region, or the nation, conducts independent research, and works with an adviser and committee to produce and present the capstone project to the committee. Offered every semester.

**POLS 5970 - Research Topics (1-3)**

Students embark on a course of individual study on a course not available ir the regular curriculum in an area of faculty expertise. Schedule and workload are to be determined by the faculty instructor in accordance with the mutuall agreed upon pedagogical objectives of the course. Every Semester.

**POLS 5980 - Graduate Independent Study (1-3)**

Students embark on a course of individual study on a course not available ir the regular curriculum in an area of faculty expertise. Schedule and workload are to be determined by the faculty instructor in accordance with the mutuall agreed upon pedagogical objectives of the course. Every Semester.

**POLS 5990 - Thesis Research (3)**

**POLS 6320 - Organization Theory & Behavior (3)**

This course will provide a general focus on theories that provide insights into organizational life. Emphasis is given to public bureaucracies. Topics include motivational theory, management behavior and policy evaluation.

**POLS 6330 - Public Finance Theory (3)**

This course examines the public finance functions of governments: stabilization, allocation, and distribution. Topics include the elements of an effective tax structure, in-depth analysis of revenue sources. Discussion is focused on theories of political economy, including classical, Marxist, Keynesian, neo-classical and new institutional economics.

**POLS 6340 - Politics, Power, and Coalitions (3)**

This class offers an intensive consideration of power, coalition, and decision theory and models for purposes of analyzing behavior and policy outcomes in communities and formal organizations.

**Public & Social Policy (PSP)****PSP 6800 - Policy Dissertation Seminar (3)**

The primary objectives of this course are twofold: 1. introduce students to various approaches to conducting policy-relevant research and examples of good and bad policy research; and 2. to have students write a draft of their dissertation proposal that fills methodological and conceptual holes apparent in earlier research.

**Psychology (PSY)****PSY 1010 - General Psychology (3)**

Provides a basic and general knowledge of the theoretical, scientific, and conceptual foundations of psychology, including biological, cognitive, emotional, developmental, cultural and social aspects. Includes key concepts and principles, methods for collecting and evaluation evidence, and application of psychological knowledge. This cou251 Gsn6-/F1 8.0036 Tf10Qq1

**PSY 4270 - Cross-Cultural Psychology (3)**

In this course, we explore how the processes of human development - from infancy to old age - vary across the globe. Within the cultures we examine the lives of infants, children, adolescents, adults, and older adults, with a special focus on family.

**PSY 4320 - Close Relationships (3)**

Uses a social psychological approach to cover theory and research on attraction, social cognition, communication, interdependence, friendship, love, relationship maintenance, stresses and strains, conflict, and dissolution.

**PSY 4330 - Psychology of Oppression (3)**

The course teaches students how to understand the mechanisms that undermine the appreciation of multiculturalism and other forms of diversity in society. The perspective emphasizes how socially constructed definitions of various groups are used to distinguish sameness and difference among people. Topics include micro- and macro-level theories of oppression, the importance of ideology in oppressive systems, and theories of social change and liberation.

**PSY 4340 - African American Psychology (3)**

The course reviews some of the theoretical perspectives in the psychological study of African Americans, examines some of the biases in past research, reviews current research in the field, and applies current theory and research to other areas of psychology (clinical, organizational, etc.)

**PSY 4350 - Health Psychology (3)**

The course is an overview of health psychology from a social psychological perspective. Topics include: Theories of health behavior, stress and coping, personality, social support, smoking, alcohol use, weight control, chronic illness, health care utilization and adherence, and designing persuasive interventions. Prerequisite: One of the following courses, PSY 3300-3390, PSY 4300-4390 or PSY 4750.

**PSY 4390 - Abnormal Psychology (3)**

A survey of mental disorders, their signs, symptoms, underlying causes and treatment, with more emphasis on signs and symptoms.

**PSY 4410 - Organizational Psychology (3)**

Interaction among person, environmental and organizational factors as they relate to such topics as personnel selection, motivation, job satisfaction, management, leadership, etc. in profit-making organizations.

**PSY 4420 - Psycholog Tests & Measuremnts (3)**

Theory and techniques in the measurement of intelligence, personality special aptitudes and interests. Emphasis on test construction, evaluation and interpretation.

**PSY 4460 - Marital Rel, Sexuality & Paren (3)**

Explores the interrelationships among marital relations, sexuality, and parenting integrated by the theme of psychological communication. Format is lecture/discussion.

**PSY 4480 - Psychology and Law (3)**

Examines laws, the legal system, and legal processes from the perspective of principles in psychology, as well as the use and effect of psychology in the formation and implementation of laws; and examines the influence of law on social science research and medical/mental health professions.

**PSY 4710 - Studies: Experimental Psych (1-3)**

The purpose of this course is to develop an advanced understanding of the biological bases of mental activity. Course includes a focus on how the brain and mind are involved in perception, attention, learning and memory, language, movement, emotions, decision-making, and consciousness. Specific course title and content will vary by semester. Refer to current semester course description or instructor fptelop18.068 136.03 283.44 55.910e1



**PSY 5893 - Clerkship in Community Psychology (0)**

Students provide supervised clinical services in a community mental health setting.

**PSY 5894 - Clerkship in Academic Psychology (0)**

Students provide supervised academic services related to the discipline of psychology, including teaching, research, service, and/or administration.

**PSY 5895 - Clerkship in Sports Psychology (0)**

Students provide supervised athletic performance services to teams and athletes.

**PSY 6000 - Teaching of Psychology (3)**

Reading, lectures and supervised experience designed to prepare the student for teaching psychology at the college level.

**PSY 6030 - Human Diversity (1-3)**

Delivered in three, one-semester-hour modules. Module One introduces issues regarding identity and oppression; exposure to ideas is goal. Module Two experientially focuses on teaching and research; integration of issues. Module Three examined the issues in practice and has a clinical-/professional-practice emphasis.

**PSY 6040 - Topics: Assessment (3)**

Survey of selected measures and research.

**PSY 6060 - Topics: Quantitative Psych (3)**



**RUSS 2020 - Intermediate Russian II: Language and Culture (3)**

This course is the fourth in the sequence of Russian language courses whose

**SOC 1180 - World Geography (3)**

**SOC 3350 - Social Movements (3)**

Analysis of selected American social movements since 1930, including their precipitating factors, recruitment strategies and consequences. The role of societal power and ideology as well as that of social identification and meaning on collective action are examined.

**SOC 3360 - Racial and Ethnic Relations (3)**

This course provides an interpretive framework for examining the many issues associated with racial and ethnic identity. We will focus primarily on Western models of race and ethnicity, but we will also explore the different ways these concepts are both imagined and perpetuated in other, non-Western societies.

**SOC 3380 - Power in U.S. Society (3)**

The socioeconomic roots of political affiliation and interest group formation are examined as are the theoretical and practical considerations of the relationship between social structure and political action.

**SOC 3390 - Cultural Anthropology (3)**

Exploration and examination of different societies including tribal, rural, and urban. Analysis of cultural systems, their legacies, and their meaning in contemporary contexts. Emphasis on cross-cultural case studies that highlight the impact of larger forces such as globalization, acculturation, migration, and social and political organizations.

**SOC 3420 - Organizations: Theory and Practice (3)**

This course examines some of the salient sociological models, concepts and problems of organizations. The role of students as citizens of an organizational society and as participants in a variety of occupational, civic and value-based organizations is emphasized.

**SOC 3430 - Marriage and the Family (3)**

Examination of theories and data on different types of families, role assignments, and definitions, pertaining to various types of societies through space and time. Modern aspects of family institutions and problems, with an emphasis on the issue of equality of marriage.

**SOC 3460 - Principles of Social Development (3)**

**SOC 4180 - Citizenship: The Struggle to Belong (3)**

Students critically engage themes of citizenship in the Western tradition while also building the skills needed for graduate research. Students complete an annotated bibliography and write a professional quality literature review during the class. Students participate in the research seminar by helping to critique each other's proposals. No prerequisites

**SOC 4200 - Cities, Suburbs, & Neighborhoods (3)**

This class explores theories that contribute to the historical and contemporary understanding of urban life. Students will explore and critique micro and macro theories related to community, neighborhood, race, and inequality. Students will have the opportunity to engage in empirical research related to urban challenges and opportunities in American cities.

**SOC 4260 - Census and Neighborhood Analysis (3)**

Examination of analytic approaches to communities and neighborhoods utilizing census and socio-demographic data.

**SOC 4310 - Issues in Jurisprudence (3)**

This course focuses on how the courts operate and fit within our democracy. Students will gain an understanding of the Constitutional guarantees including the Due Process Clause and the Equal Protection Clause and various guarantees contained in the Bill of Rights. Criminal Law and Procedure (SOC 439) is a prerequisite.

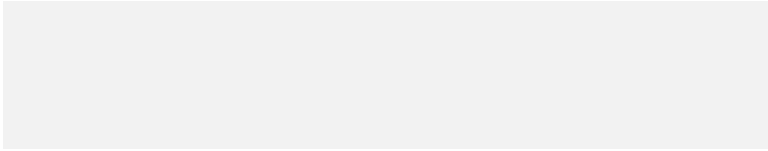
**SOC 4320 - Issues in Law Enforcement (3)**

We study the administration of law enforcement agencies, emphasizing the process, role, organization, and management of policing organizations. Specifically, we will pay particular attention to its history, innovations, the

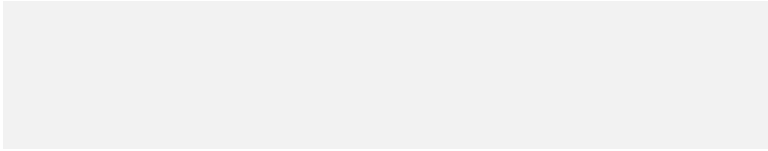












**SPAN 5320 - Themes in Latin American Literature (2-3)**

This course examines the literary contributions of Afro-Hispanic writers from Spanish America and Equatorial Guinea in order to discuss the complexity of

**SPAN 5770 - Verbum: the Journey of Women Poets in Contemporary Spain (3)**

Historical analysis of Spain's contemporary women poets; struggle with the canon. Literary interpretation of a representative selection of modern and contemporary Spanish women poets: Rosalía de Castro, Ernestina de Champourcin, Concha Zardoya, Carmen Conde, Gloria Fuertes, María Victoria Atencia, among others. (Offered occasionally).

**SPAN 5780 - Contemporary Spanish Women Writers (2-3)**

This course introduces the student to the study of the narrative written by contemporary Spanish women authors. There will be a specific study, through selected texts, of the most representative movements and tendencies of the post-war narrative and of the various means chosen by the authors to express their literary universe from their condition as women. (Offered occasionally.)

**SPAN 5790 - Contemporary Spanish Culture & Civilization (3)**

This course provides a study of the nature of Spanish society today, with special emphasis on those events that make Spain unique in relation to other Western countries. Topics of discussion will include elements of the economic, cultural, social and religious life of contemporary Spain. (Offered occasionally.)

**SPAN 5820 - Medieval Short Stories: Power, Wisdom and Fantasy in Tales (3)**

In this course we explore the worldviews and lessons about human experience conveyed by Spanish medieval short narratives and fairy tales. Basic topics are: differences between medieval and contemporary stories; cultural and ideological functions of a tale; the interplay of different cultures; gender roles; and the popularity of certain motifs. Offered periodically.

**SPAN 5830 - El Cid/El Amor/La Celestina (3)**

Close reading and discussion of three medieval Spanish masterpieces, which have remained modern throughout the ages. Insight into social, historical, literary, and creative issues. (Offered occasionally.)

**Statistics (STAT)**

**SUS 5100 - Environmental Politics and Policy (3)**

Examines the politics and processes of U.S. environmental policy-making. Topics include: why government makes environmental laws; competing values influencing environmental policy; institutions, processes, and political actors that shape the creation and implementation of environmental laws

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**THEO 2530 - Social Injustice/Social Gospel (3)**

The primary goal of this course is to animate SLU's mission to form leaders who desire to transform society in the spirit of the Gospels. It will pursue this goal as a reciprocal learning class (i.e., at least 30 hours of service learning in the community) that examines social injustice in Saint Louis according to the Gospel call of personal conversion and social transformation. Prerequisite: THEO 1000.

**THEO 2610 - The Christian Sacraments (3)**

The Sacraments, the Church as ultimate manifestation of Covenant of the People of God, development of sacraments in apostolic community and patristic age, modern sacramental theology.

**THEO 2710 - Religions of the World (3)**

This course is an introduction to the history, belief-systems, practices, and divisions of the world's major religions. It focuses especially on Hinduism, Sikhism, Buddhism, Jainism, Confucianism, Taoism, Shintoism, Zoroastrianism, Judaism, Christianity, Islam, the Baha'i Faith, and Native American spirituality. The only prerequisite is Theology 100: Theological Foundations.

**THEO 2715 - Jerusalem: Three Faiths, One City (3)**

DESCRIPTION: This course (under this name only) satisfies the criteria for the College of Arts and Sciences Cultural Diversity component of the Core. A survey analysis of the three Abrahamic faiths and their interrelationships focusing on the significance of Jerusalem for each of them historically and today.

**THEO 2717 - Muslims, Christians, and Jews in Medieval Spain (3)**

This course will cover the history and achievements of what was once a multi-religious, multi-cultural civilization and explore the lessons we can learn from a time when Muslims, Christians and Jews lived and worked together, especially in the areas of theology, commerce, culture and art. Pre-requisite: THEO 1000.

**THEO 2720 - Islam: Religion & Culture (3)**

An overview of fundamental beliefs and values of the religious tradition called Islam, using primary textual and visual sources from a range of cultural contexts, with special attention to how the story of Islam offers insight into the interplay of religion and culture: wherever Islam has taken root, it has become inculturated even as it has Islamized its new host culture.

**THEO 2815 - Psychology and the Soul (3)**

This course considers the intersection between psychology and theological conceptions of the "soul" and "self." This course provides the student the critical means by which to think about the relationship between psychology

**THEO 3370 - Teachers in Medieval Christianity (3)**

**THEO 4190 - Seminar in Old Testament/Hebrew Bible (3)**

This course will cover a topic of interest relevant to the study of the Old Testament/Hebrew Bible. Prerequisite: One THEO 2000 level course.

**THEO 4210 - How to Interpret Scripture: Methods and Perspectives (3)**

An examination and survey of biblical hermeneutics, including Old and New Testaments, rabbinic Judaism, the early church, and the history of hermeneutical theory up to the present time.

**THEO 4215 - The Bible and Literature (3)**

**THEO 5210 - Survey of Early Christian Hist (3)**



**THEO 5800 - Theo & Catechetical Ministry (3)**

History and theology of religious education and the role of the catechist in Christian tradition; the theological understanding of religious education and the principal authoritative documents of recent times. Offered every other year.

**THEO 5810 - Ignatian Spirituality & Pedagogy (3)**

**THR 1000 - Approaching the Arts: Theatre (3)**

Objectives: 1. To examine some public impressions of the role of the arts in American society; 2. To demonstrate to students, through lecture and discussion, some of the key features of a play in performance which critics, fans, and theatre artists have sought in contemporary productions; 3. To introduce some of the students to the standard tasks and procedures brought to bear in play productions; 4. To apply all of these studies to the appreciation of plays by viewing several live productions during the semester. Satisfies the Arts and Science Core Requirement for non-majors.

**THR 1010 - Introduction to Performing Arts (3)**

The goal of this course is to introduce students to the world of the performing arts in Western culture. After a set of synthetic historical and theoretical lectures, the course will focus on single works inspired by the same subject, chosen within the main repertoire of each discipline (drama, opera, ballet, concert music, musical theatre). This will allow the students to appreciate how the same ideas can be treated differently according to the artistic medium to which they are adapted.

**THR 1500 - Introduction to Theatre (3)**

An introduction to the process of making theatre. Students will work on

**THR 4545 - Lighting and Sound Design (3)**

This course will combine the design elements, essential concepts, and practical considerations of lighting and sound in theatre: Which will include textural analysis, research methods, renderings and draftings, and how to communicate and collaborate with the design team including directors and actors.

**THR 4570 - Advanced Acting: Scene Study (3)**

This course will provide introductory knowledge of the basic acting theories espoused since the late 1800's. Application of that knowledge will be given to scene work and/or monologue preparation.

**THR 4590 - Advanced Acting: Period Styles (3)**

This is an advanced acting course introducing the values and mores of select historical periods and performance styles with the intention of applying that knowledge to characterization.

**THR 4620 - Advanced Acting for the Camera (3)**

This course is structured around various topics which introduce advanced level students to particular performance techniques involved in acting for television and film.

**THR 4630 - Advanced Studies in Theatre Design (1-2)**

This course is directed study and studio work that builds on the foundation laid

**WGST 3630 - Sex, Gender, & Christian Ethic (3)**

An introduction to contemporary Christian thinking on sexuality. Students are encouraged to understand the diversity of the Christian tradition, debate the available alternatives, and come to their own well-reasoned positions. Issues covered include premarital sex, gender, contraception, and homosexuality. Prerequisites: Any 200 level Theology course.

**WGST 3650 - Women's Lives (3)**

This course examines women's lives in the nineteenth- and early twentieth-century United States. Looking at a wide range of different kinds of texts, including novels, photographs, essays, speeches, letters, short stories, autobiographies, and slave narratives, we will examine how women from diverse social positions produced, promoted, and challenged representations of womanhood.

**WGST 3720 - Ren & Mod Political Theories (3)**

Examines the works of Machiavelli, Hobbes, Locke, Rousseau, Wollstonecraft, Taylor, and Mill, among others, focusing on different notions of justice, law, freedom, and community. Particular attention is paid to the public and private contexts and gendered political roles associated with modern political thought.

**WGST 3770 - Postmodern Politics: Sex/Race/Class (3)**

This course will examine postmodern thought with a focus on poststructuralism, semiotics, and deconstruction. The course will critically interrogate these approaches and examine the politics of the construction of self, communities, cosmologies, understandings of agency and responsibility, and issues of social justice by focusing on class, race, and sex.

**WGST 3775 - Feminist Theory-Gender Justice (3)**

Feminist Theory: Gender Justice examines the various ways of understanding gender by looking at a variety of theories and philosophical perspectives within feminist thought, especially as it is formed by political philosophy including liberal, radical, Marxist and postmodern feminism. Sub-field in political science is Political Thought.

**WGST 3780 - Disability Theory and Politics (3)**

This course applies insights from disability studies to Western political thought in order to examine the political nature of disability and the disabling nature of politics. In this course, students are exposed to varying definitions, cultural representations, social justice issues, human rights concerns, and bioethical debates related to disability.

**WGST 3800 - Violence Against Women (3)**

This course focuses on the causes, effects, and institutional responses to several types of gender-based violence, including sexual assault, intimate partner violence, sexual harassment, and sex trafficking. Includes examination of the psychological, legal, sociological, and political discourse surrounding these issues. No prerequisites.

**WGST 3850 - Feminism in Action (3)**

This course addresses feminist activism on a wide range of issues (including domestic violence, rape, education and health care), and in a variety of forms (including writing, theater, public protests and coalition building). It gives students the opportunity to study the scholarship of activism and to participate in feminist action.

**WGST 4200 - Psychology of Women (3)**

The study of girls' and women's development, including gender roles, gender role stereotyping, the biology of being female, psychological theories about gender, violence against women, women in families, in relationships, and in the workplace. The course addresses women's diversity by race, ethnicity, culture, age, nationality, sexual orientation, and economic condition.

**WGST 4300 - Gender & Communication (3)**

This course explores the construction and performance of gender and identity within the context of communication.

**WGST 4310 - Contemp Women Writrs in France (3)**

20th-Century Women's fiction in French, examined in light of French and Quebecois feminist theory. De Beauvoir, Duras, Sarraute, Brossard, Maillet, Cixous, Irigaray, Redonnet, etc. Taught in French.

**WGST 4330 - Psychology of Oppression (3)**

This course uses a family-centered approach to the study of the health care needs of women, infants, children, and adolescents. Emphasis is placed on theoretical knowledge and research findings as the basis for nursing strategies to promote, maintain, and restore health. Priority is given to significant health care issues within these populations.

**WGST 4340 - Nursing Care of Childbearing (3)**

This practicum provides an opportunity for students to apply theoretical knowledge and research findings in the care of selected women, infants, children, and adolescents. The use of a family-centered approach in the nursing process is emphasized. Learning experiences are provided in a variety of settings.

**WGST 4350 - Stereotyping and Bias in Mass Media (3)**

Examines debates over stereotyping and bias in the mass media. Considers the types of materials that have aroused charges of bias, and surveys the historical, economic, political, sexual, and sociological perspectives that help explain stereotyping as a cultural practice.

**WGST 4380 - Early Women Writers (3)**

An examination of the writings of Englishwomen in the period from 1600 to 1700, including autobiographies, tracts, letters, fiction, poetry, and plays.

**WGST 4480 - Jane Austen & her Predecessors (3)**

An exploration of five of Jane Austen's novels as well as fiction by Charlotte Lennox and Fanny Burney. The purpose is to develop an understanding of Austen's work in its social and cultural context.

**WGST 4490 - 18th & 19th Cent Women Writers (3)**

An examination of the woman writer and literary tradition in the 18th and 19th centuries, including such writers as Eliza Haywood, Fanny Burney, Jane Austen, Charlotte Bronte, and Christina Rossetti.

**WGST 4580 - Studies in 19th Century Lit (3)**

Focus on women writers in the Nineteenth Century. Explore the evolution of the women writer's role in the emerging marketplace of mass culture; changing perceptions of gender and sexuality and women writers' responses to the rise of industrial capitalism and political reform.

**WGST 4650 - Wolfram von Eschenbach's Parzival: Gender, Race, and Otherness (3)**

In this course, student will read and critically reflect on Wolfram von Eschenbach's Parzival (ca. 1220). They will read the text in modern German. While this text is fictional, it is grounded in 'reality' and reflects upon its times and its discourses on politics, religion, race, gender, and otherness, the focus of this course. This course is taught in German, therefore knowledge of German required. Prerequisite(s): GR-3200 & GR-3250, or instructor permission.

**WGST 4750 - American Political Thought (3)**

From 1765 to the present. Eighteenth century consensus, nationalism versus sectionalism, nineteenth century reform movements, pragmatism and progressivism, current liberalism and conservatism.

**WGST 4770 - Spanish Women Poets (3)**

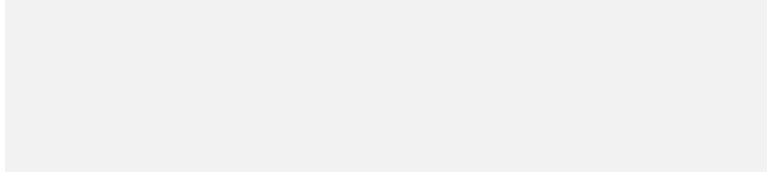
Historical analysis and literary interpretation of a representative selection of modern and contemporary Spanish women poetry. Discussion of the topics and preoccupations present in their work, and analysis of their contribution to reformulating the male canon in general. Authors: Carolina Coronado, Rosal de Castro, Concha Zardoya, Gloria Fuertes, and Maria Victoria Atencia.

**WGST 4800 - Black Women in Society (3)**

This course is designed to provide an interdisciplinary approach for the study of African women in the context of a changing society and the impact of the context from social, historical, cultural, political and economic perspectives. Attention will be devoted to the examination of relationships that have

**WGST 4860 - Global & Transnational Feminism (3)**

This course offers an advanced survey of the field of theory and political activism referred to as transnational feminism. Students are introduced to the history of feminist work in international political and economic forums (e.g. the UN and World Bank), as well as to on-going feminist efforts in the context of current social movements around the globe.



**WGST 5910 - Women Leaders Internship (3-6)**

Interns work in government, nonprofit, or other organizations in the St. Louis community on issues of social justice related to gender and sexuality. Students keep a journal, complete an internship project (for example, a research paper, a grant proposal, or a policy analysis paper), and give a presentation of their work to the organization and a public presentation to the Women's and Gender Studies program.

**WGST 6200 - Visual Culture Theory (3)**

Introduction to the theoretical models and questions that inform the wide-ranging critical practices of visual culture studies. Course examines foundational texts in visual theory as well as many different cultural forms available to visual cultural analysis such as vision itself, material culture, museums, photographs, films, and television. Offered every other year.

**WGST 6270 - Middle English Literature (3)**

Selected issues or representative figures in Middle English literature.

**WGST 6300 - Feminist Ethics (3)**

Extensive examination of such questions as how ethical claims are distinctive and whether and how they can be rationally based. Offered annually.

**WGST 6350 - 17th Century Literature (3)**

Figures or developments in English literature of the seventeenth century.

**WGST 6500 - Romanticism (3)**

Selected writers and works of the Romantic period in British literature.

**WGST 6590 - 19th Century English Lit. (3)**

Studies in particular issues and developments in British literature of the 19th century.







**BIZ 1000 - Business Foundations (1)**

This course provides students with an overview of the nature of business and shows students how the business curriculum is designed to help prepare them for a business career. In addition, the course will address some common transition to college issues faced by freshmen. Pre or Co-requisite: BIZ

**BIZ 6204 - Having Difficult Conversations (1)**

This course, Having Difficult Conversations, is designed to introduce students

**ECON 4310 - Exchange Rates and Global Econ (3)**

Examines basic international economic principles and determinants of trade balances and exchange rate movements. The course evaluates the factors that affect real and nominal exchange rate movements in the short, medium and long-run. It is designed to ask and answer important questions of current

**ECON 6300 - International Trade (3)**

Determinants and effects of trade between nations and other economic groups. Efficiency and equity implications of the movement of goods and services and factors of production between economic entities. Tariffs and

**FIN 4230 - Financial Management (3)**

Study of principles of corporate finance and application of those principles to a variety of financial management problems. Applications include capital budgeting, working capital management, capital acquisition and other aspects of financial management. Prerequisite(s): FIN-3330 and FIN-3630; or permission of the department chair.

**FIN 4250 - International Financial Mgt (3)**

Study of international finance with emphasis in international management for



**IB 4910 - International Bus. Internship (1-3)**

This course can be used as elective credit or as concentration credit. Participants will have the opportunity to develop new skills through experiential learning under the direction of a skilled practitioner. The arrangements for the working relationship must be established prior to the assignment.

Prerequisite(s): IB-2000, permission of the department chair and Junior or Senior standing.

**IB 4980 - Special Study (1-3)**

Permission of the department chair.

**IB 5010 - Managerial Economics and Data Analysis (2)**

This is an introductory course in economics designed to introduce participants to the most basic economic concepts and the application of these concepts to various situations. The course does not presume a background in economics and is, therefore, self-contained. The first half of the course is spent studying the tools of competitive analysis. The second half allows application of the tools to formulate and implement competitive strategy.

**IB 5050 - Fin & Man Acct Methods (2)**





**ITM 3550 - Introduction to "Big Data" (3)**

Big Data is the buzzword in business today. It speaks of the great volume, velocity, variety, veracity and value of available data can be obtained in the world. The recent explosion of social media, mobile computing, and the computerization of virtually every aspect of economic activity have resulted in the creation of Big Data, and promise the discovery of new value and opportunities in businesses. In a parallel development, computers continue to become more powerful, storage space becomes increasingly more affordable, and cloud computing becomes more accessible and affordable. Today, we have the ability to reliably and inexpensively store huge volumes of data, efficiently analyze them, and swiftly extract business and socially relevant information. Prerequisite(s): OPM-2070

**ITM 3600 - Global Information Management (3)**

This course addresses issues in global information management. It will focus on central issues facing IT managers and general managers working with IT on a multinational basis. The context of issues regarding regions/nations, firms, and individuals will be addressed in terms of policies, technical infrastructure, application and business processes, and IT operations. Students will work with cases to apply these concepts in context. Students will also interact with students from other countries for developing knowledge regarding global information technology issues using groupware technology.

Prerequisite(s): ITM 2000 and IB-2000.

**ITM 3700 - Business Analytics (3)**

Business Analytics (BA) is the art of transforming business data into business intelligence. Business Intelligence covers strategies and technologies to achieve knowledge about status, potentials, and perspectives of a company out of heterogeneous and distributed data. The focus of this course is to

**ITM 6250 - Electronic Commerce Systems (3)**

This course covers the basic approach to the principles of design and implementation for electronic commerce systems. Also covered are issues in project management, underlying technologies that enable electronic commerce at the firm and market levels, and issues of security. The intent of the course is to aid individuals preparing for positions that include membership on and management of electronic commerce development teams.

Prerequisite(s): ITM-6000

**ITM 6300 - Database Management Systems (3)**

Course provides an overall understanding of database techniques, beginning with a study of the characteristics of relational database management systems and continuing with structured query language (SQL), entity--relationship diagrams, dependencies and normalization, and multi-user systems. Evolving approaches to database management, such as object-oriented database, will also be examined. Projects will require the student to develop a database design from the analysis stages to the final implementation by utilizing various design tools and a DBMS package such as Oracle. Prerequisite(s): ITM-6000

**ITM 6350 - Telecommunications (3)**

This course looks at the types of information used in the business environment and the implications in terms of communications along with the trend toward digital integration of historically stand alone analog and digital technologies. It examines the process of converting voice, data, image, and video information into integrated electromagnetic signals for transmission via various media. Coverage includes combination's techniques, transmission efficiency methods, wide area networks (WANs), local area networks (LANs), high-speed trends in networking, and communications architectures and subsequent internetworking issues. Prerequisite(s): ITM-6000

**ITM 6400 - Applied Business Analytics (3)**

This course provides necessary skills for business managers to apply Business Analytics tools for data analysis and business decision making. This course focuses on developing skills and knowledge in creating analytics solutions such as Business Intelligence Dashboards. Using hands on tutorials and case studies, students will learn and demonstrate application of analytics skills in multiple business domains. Prerequisite: Six credit hours of 6000-level graduate business courses.

**ITM 6450 - Business Strategy and Enterprise Systems (3)**

This course serves as an introduction to ERP and also provides a solid foundation for the common business processes used in today's organizations. In this course, students will learn about common business processes and gain proficiency in the use of the SAP® enterprise system to execute those processes. Students will also learn how to manage a company that involves trading goods as well as a manufacturing enterprise. Students will have to create strategies to be successful in a competitive environment.

**ITM 6500 - Managing Cybersecurity in Organizations (3)**

This course will help students to develop the skills required to manage a

**MBA 6210 - Information Technology (1)**

This course focuses on the management of information technology in organizations. Foundational concepts regarding information technologies will be covered. These foundational concepts include: (1) enterprise software; (2)

**MBA 6370 - Ethical Environment of Business (1)**

Special emphasis in this course is given to the analysis of ethical issues that business managers confront. A complementary objective is to focus on the implementation of ethical judgments and to formulate appropriate strategies for addressing barriers to such implementation. Throughout the course, however, the connection between reflection and action will be our chief concern. Existing norms for business practice will be studied and examined as they represent important guidelines for decision-making, but students will also be challenged to consider their adequacy, applicability, and appropriateness in various contexts. The course will consist of two broad elements. One component takes up the conceptual and theoretical foundations of business ethics. Readings, tools and perspectives will be drawn from various sources: moral philosophy, business history, economics, religion, and other disciplines. The focus in this section is on ethical analysis and moral reasoning. The second component, representing a serious effort to simulate actual ethical

**MGT 2000 - Legal Environment Bus (3)**

Introduction to the U.S. legal system and to specific areas of the law such as torts, contracts, the law of agency and of business organizations. The course also covers American public law affecting businesses, including securities regulations, antitrust law, consumer protection, employment and environment law. Global and ethical issues are considered throughout.

**MGT 3000 - Mgt Theory & Practice (3)**

Studies management using both classical as well as modern theories of organization; the functions of management, external and/or environmental aspects bearing on managerial responsibility; development of practical management policy as guides to managerial decision-making, and human aspects of management including motivation, workplace equity, and demographic diversity. Prerequisite: Sophomore standing.

**MGT 3100 - Organization Behavior (3)**

A study of interpersonal relations between individuals and groups in an organizational setting. The social environment of the work situation, along with the need of understanding and working with this environment, is emphasized. Problems arising from such relations are analyzed and evaluated.

Prerequisite(s): MGT-3000.




**MGT 6101 - Executive Decision Making (3)**

Oriented toward giving the student insight into the decision-making process in management. The nature of managerial decision-making, the environment for decision-making and the philosophy and selected techniques for decision-making offered modern managers by the management sciences will be considered.





**MKT 6000 - Marketing Management (3)**



**OPM 6050 - Business Process and Operations Management (3)**

Designed to familiarize students with decision-making tools and models that are utilized by operational managers, to present business firm integrated operational practices in the manufacturing and service sectors, and to analyze and examine the business strategic planning process from a cross-functional perspective, utilizing case studies. Topics include: operations and supply-

**Aerospace Engineering (AENG)****AENG 1001 - Introduction to Aerospace & Mechanical Engineering (1)**

This course will introduce aerospace and mechanical engineering. Through hands-on activities, students will learn the basics of engineering design and entrepreneurship. Working in teams, students will build aerospace and mechanical systems, practice entrepreneurial thinking, and develop the personal and professional skills needed to engage in lifelong learning. This course is open to non-majors.

**AENG 1002 - Computer-Aided Engineering Design (1)**

This course is an introduction to engineering drawing and computer aided design (CAD) and 3D solid modeling. Students will learn to interpret engineering drawings, create engineering drawings, and create 3D models of mechanical systems.

**AENG 2000 - Intro to Aeronautics & Astron (3)**

The nature of aerodynamic forces; incompressible and compressible fluid flow; lift and drag; introduction to performance, stability and control; propulsion; structures; rocket performance and orbits. The design process. Pre/Corequisite: AENG-1002 or MENG-1002 or ESCI 1020.

**AENG 2910 - Co-op with Industry (0)**

Prerequisite: Sophomore standing. A full-time supervised work experience with an agency, firm or organization that employs persons in this degree field. This course is used for the first experiential learning session. Grading system is determined by department offering course. Offered every semester

**AENG 3000 - Performance (3)**

Aircraft performance characteristics, level flight, rate-of-climb, range and endurance, take-off and landing, turn performance, energy state approximation, propeller theory and analysis, constraint analysis, carpet plots and design methodology. Prerequisite(s): AENG-2000.

**AENG 3100 - Computer Aided Engineering (3)**

The course outlines the principles of Computer Aided Engineering. The computer applications to structural design, kinematic synthesis and design optimization are explored. Prerequisites: ESCI3100 Mechanics of Solids, CSCI 1060 Scientific Programming

**AENG 3150 - Astrodynamics (3)**

Space environment; two-body problem and introduction to orbit mechanics; rigid body dynamics; satellite dynamics, rocket performance; re-entry dynamics. Prerequisite(s): AENG-2000 and ESCI-2150. Spring semester.

**AENG 3210 - Gas Dynamics (3)**

One-dimensional gas dynamics; normal and oblique shock waves; Prandtl-Meyer flows; Rayleigh and Fanno-line flow; method of characteristics.

Prerequisite(s): ESCI-2300 and ESCI-3200 Pre/Corequisite: MATH-3270  
Spring semester.

**AENG 3220 - Aerodynamics (3)**

Circulation and vorticity; irrotational flows and potential flow theory; Kutta-Joukowski theorem, subsonic thin airfoil and finite wing theory; subsonic compressible flow; supersonic thin airfoil theory; slender body theory, Newtonian impact theory. Spring semester. Prerequisite(s): ESCI-3200  
Pre/Corequisite(s): MATH-3270.

**AENG 3910 - Co-op with Industry (0)**

A full-time supervised work experience with an agency, firm or organization that employs persons in this degree field. This course is used for the second experiential learning session. Grading system is determined by department offering course. Prerequisite(s): Junior Standing(Offered every Fall, Spring and Summer)

**AENG 3915 - Internship with Industry (0-3)**

A work experience with an agency, firm or organization that employs persons in this degree field. This experience may be full time or part-time as required by the industry sponsor. This course is used for the first experiential learning session. Grading system is determined by department offering course.

Prerequisite(s): Junior standing. (Offered every Fall, Spring and Summer)

**AENG 4004 - Flight Vehicle Analys & Dsgn I (3)**

Application of aerospace engineering to the design methodology of a flight vehicle. Fall Semester. Prerequisite(s): AENG-3000 Pre/Corequisite(s): AENG 4400.

**AENG 4014 - Flight Vehicle Analy & Dsgn II (3)**

Application of aerospace engineering to the detail design of a f-6( )-2(eA-19)

**AENG 4700 - Aeroelasticity (3)**

Aerodynamic loads on a flexible surface. General formulation of aeroelastic problems. Control effectiveness and reversal. Wing divergence. Two - and three dimensional flutter theory. Empennage vibration and flutter analysis. Flutter prevention. Testing techniques. Prerequisite(s): ESCI-3110.

**AENG 4800 - Systems Engineering (3)**

Selected topics of special interest to aerospace engineering majors.

**AENG 4910 - Co-op with Industry (0)**







**ASCI 3650 - Applied Statistics (3)**

In this course, the students will apply fundamental statistical analysis techniques to interpret data from their professional career interests. Discussion topics will include data collection, set-up of statistical analysis software, statistical sampling, parametric and non-parametric data analysis, report writing, and interpretation of previously published statistical reports.

Prerequisite(s): MATH-1320 or higher.

**ASCI 3910 - Co-op with Industry (1)**

A full-time supervised work experience with an agency, firm or organization that employs persons in this degree field. This course is used as an experiential learning session. Grading system is determined by department offering course. Prerequisite(s): ASCI-2910

**ASCI 3915 - Internship with Industry (1-3)**

A work experience with an agency, firm or organization that employs persons in this degree field. This experience may be full time or part-time as required by the industry sponsor. This course is used as an experiential learning



**ASCI 5080 - Management of Avtn Safety Prog (3)**

Synergistic application of five perspectives is discussed: organizational psychology, behavioral psychology, engineering, accounting, and underwriting. Discussion topics include the following: organizational risk management, hazard identification and management, failure modes and effects analysis, fault-tree analysis, values-based safety program development, and cost analysis of safety programs.

**ASCI 5100 - Avtn Safety Career & Per. Dev. (3)**

Aviation safety career and personal development in private and public aviation organizations.

**ASCI 5120 - Aviation Safety Quality Issues (3)**





**BME 5650 - Quantitative Physiology II (3)**

In this course, students will quantitatively examine aspects of human physiology related to a number of body systems. The topics will cover cardiovascular physiology, respiratory physiology, renal physiology, gastrointestinal physiology, and endocrine. This examination of the field will lead to a quantitative understanding of how these systems work alone and integrate with one another. Offered as needed in spring.

**BME 5800 - Research Rotation (1-3)**

Students with or without previous research experience are provided the opportunity to carry out a research project with the guidance of a faculty member. A wide variety of topics in the fields of tissue engineering, biomaterials, biomechanics, biosignals, and biomeasurements are available. Course open to BME Graduate Students.

**BME 5930 - Special Topics (1-3)**

A one-time or trial course.

**CVNG 3110 - Transportation Engineering (3)**

Introduction to transportation analysis and design. Course includes topics on road user and vehicle characteristics; geometric design of roadways, including horizontal and vertical alignment and cross-sectional elements; and signalized intersections. Also included is an Introduction to traffic engineering and transportation planning. Prerequisite(s): MATH-3850 or MATH-4880. (Offered every Spring)

**CVNG 3120 - Transportation Engineering Lab (1)**

Overview and use of measurement methods that can evaluate traffic flow and pavement condition and an introduction to computational methods used in transportation analysis and design. Co-requisite: CVNG 311. Offered every spring semester.

**CVNG 3130 - Hydraulic Engineering (3)**

Hydraulic and hydrological analysis applicable to civil engineering design. Topics include pressure pipe system analysis and design, open channel flow analysis and design, groundwater flow fundamentals and well design, hydrologic processes, storm water system analysis and design, and sanitary sewer analysis and design. Prerequisite: ESCI 322. Offered every spring semester.

**CVNG 3140 - Hydraulic Engineering Lab (1)**

Overview and use of measurement methods that can evaluate hydraulic and hydrologic conditions and an introduction to computational methods used in hydraulic and hydrologic analysis and design. Co-requisite: CVNG 313. Offered every spring semester.

**CVNG 3150 - Intro to Structural Design (3)**

Introduction to structural design codes and provisions. Loads and load combinations. Theory and design of reinforced concrete structures: beams, columns, slabs, walls and buildings. Theory and design of simple steel structural members and connection. Prerequisite: CVNG 301. Offered every spring semester.

**CVNG 3160 - Structural Design Lab (1)**

Companion laboratory to Introduction to Structural Design course. Focus is on the application of design codes and provisions to structural design problems.

Prerequisite: CVNG 301 Co-requisite: CVNG 3150

**CVNG 3915 - Internship with Industry (1-3)**

Field-based course. This course is an experiential learning course, which takes place in the place with a partner in industry. It is intended to be in partnership between the student, industry, and faculty.

**CVNG 4010 - Senior Engineering (1)**

Review of topics related to FE exam. Offered every spring semester.

**CVNG 4030 - Foundation Engineering (3)**

Application of the fundamental concepts of soil behavior to evaluate, select, and design shallow and deep foundation systems. Topics include the design and analysis of footing, mat, pier, and pile foundations. Professional development elective. Prerequisite: CVNG 309.

**CVNG 4050 - Advanced Structural Analysis (3)**

Direct stiffness method for analysis of two-dimensional trusses and frames, equivalent nodal forces, thermal and settlement effect, principal of virtual work, space trusses, grid structures, static condensation, Lagrange multipliers, tapered elements. Prerequisite: CVNG 301 or equivalent.

**CVNG 4070 - Structural Dynamics (3)**

Single degree of freedom systems, lumped-mass multi-degree systems, and multi degree of freedom systems. Numerical evaluation of system responses due to blasts, wind, and earthquake loading. Applications. Prerequisite: CVNG 301 or equivalent.

**CVNG 4090 - Advanced Reinforced Concrete (3)**

Advanced topics in flexural design; torsion in beams; behavior and design of slender columns; biaxial bending of columns; design of two way slabs; inelastic analysis of flexural members; use of strut and tie analysis; yield line analysis; design of mat foundations.

**CVNG 4110 - Advanced Steel Design (3)**

Interpretation of current codes as related to the physical behavior of steel structures. Design of structural steel members: tension, compression, flexural and beam-columns. Design of connections. Prerequisite: CVNG 315

**CVNG 4130 - Bridge Engineering (3)**

Structural systems for bridges, loading, analysis by influence lines, slab and girder bridges, composite design, pre-stressed concrete, rating of existing bridges, specifications and economic factors. Prerequisite: CVNG 315.

**CVNG 4150 - Prestressed-Concrete (3-6)**

Theory and analysis of prestressed concrete members by various methods of prestressing; design of simple and continuous beams and slabs; prestress losses; composite beams. Extensive study of materials used in prestressed concrete. Precast concrete systems. Prerequisite: CVNG 3150.

**CVNG 4190 - Sustainable Land Development Engineering (3)**

Introduction to land development engineering and urban planning; site design and sediment control; transportation planning and roadway design; water resource and waste disposal issues; ecological impact analysis; application of sustainable development principles to land development projects at local and

**CVNG 5070 - Structural Dynamics (3)**

Single degree of freedom systems, lumped-mass multi-degree systems, and multi degree of freedom systems. Numerical evaluation of system responses due to blasts, wind, and earthquake loading. Applications. Prerequisite: CVNG 301 or equivalent.

**CVNG 5090 - Advanced Reinforced Concrete (3)**

Advanced topics in flexural design; torsion in beams; behavior and design of slender columns; biaxial bending of columns; design of two way slabs;

**ECE 2915 - Internship with Industry (1-3)**

A work experience with an agency, firm or organization that employs persons





**ECE 5110 - Power Systems Analysis I (3)**

The course deals with analysis and design of electrical power transmission lines and its components. Per-Unit and power systems: Transformers and power lines. RLC - Computing transmission line parameters, ABCD parameters and transmission line steady-state operation. Power flows and system protection.

**ECE 5111 - Power Systems Analysis II (3)**

The course builds on topics covered in part I. Study of symmetrical faults, methods of symmetrical components and basis for studying unsymmetrical faults, power system protection, power system controls, Transient operation of transmission lines and Transient stability. Prerequisite: ECE 4110.

**ECE 5120 - Modern Control Theory (3)**

State-space representation (discrete and continuous) of linear systems. Observability and controllability. Controller design, estimator design and

**ECE 5915 - Internship with Industry (1-3)**

A work experience with an agency, firm or organization that employs persons in this degree field. This experience may be full time or part time as required by the industry sponsor. Grading system is determined by department offering course. Offered every semester. 0-3 credit hours.

**ECE 5930 - Special Topics (3)**

Special topics course is based on faculty and students interests. This would be an avenue to develop new courses on a trial basis.

**ECE 5960 - Masters Project (1-3)**

Theoretical/ computational/ experimental work that leads to a project Report and defense of the Project.

**ECE 5970 - Research Topics (1-3)**

Theoretical or experimental work that is not part of the Thesis or Project.

**ECE 5980 - Independent Study (1-3)**

An individualized study course, in which students explore topics related to their graduate work and career goals. Students work with faculty members on a specific topic compatible to master's level and produces a report.

**ECE 6910 - Co-Op with Industry (1-6)**

A full-time supervised work experience with an agency, firm or organization that employs persons in this degree field. Grading system is determined by course. Produces a report.

**FSCI 1565 - Flight 2 Transition Supplemental (1-2)**

This course provides the supplemental coursework necessary for the student to perform commercial maneuvers and will include the elements of airmanship, practical weather, and other cross-country skills. Offered in spring. Prerequisite: FSCI 1560.

**FSCI 2150 - Flight 3 (0-3)**

This course provides instruction for the application of previously learned commercial maneuvers; introduction of instrument flying and navigation skills in the flight environment. Prerequisite: FSCI 1550.

**FSCI 2155 - Flight 3 Supplemental (1-2)**

Instrument Flying Handbook, Instrument Rating Practical Test Standards (PTS), IFR Low Altitude Enroute Chart, Terminal Procedures Publication. Offered in spring. Prerequisite: FSCI 2150.

**FSCI 2250 - Instrument Flight Foundations (3)**

This course will provide instruction in the advanced knowledge areas of aviation law for instrument flight, mass & balance, flight planning, and radio navigation for high performance aircraft as pilot in command. Prerequisite: FSCI 1250

**FSCI 2550 - Flight 4 (0-3)**

This course will provide the principles of flight to qualify for the Instrument Rating for Single engine. These principles will include airmanship, complex aircraft systems, high altitude operations and weather, and flight planning. Prerequisite: FSCI 2150.

**FSCI 2555 - Flight 4 Supplemental (1-2)**

This course provides the supplemental coursework necessary for the student

**MENG 3010 - Machine Design (3)**

Design methodology, optimization, design of various machine elements including shafts, springs, belts, gears, and bearing. Design for strength and rigidity, fatigue and fracture. Pre/Corequisite: AENG 3100

**MENG 3100 - Computer Aided Engineering (3)**

The course outlines the principles of Computer Aided Engineering. The computer applications to structural design, kinematic synthesis and design optimization are explored. Prerequisites: ESCI 3100 Mechanics of Solids and CSCI 1060 Scientific Programming

**MENG 3430 - Measurements (3)**

A study of various measurement techniques in engineering and statistical analysis of experimental data. Applications to the measurement of strain, force, pressure, temperature, and fluid flow. An emphasis is given to design of an experiment and error analysis using statistical data analysis. Prerequisite: ECE 2001 Electrical Engineering and ECE 2002 Electrical Engineering Lab (or co-requisite).

**MENG 3510 - Material Science (3)**

A study of the material properties, atomic structure and bonding, mechanical failure theory, dislocation, phase diagrams, polymer structure, and ceramics. Prerequisite: ESCI 3100; CHEM 1070 or CHEM 1110

**MENG 3910 - Co-Op with Industry (0)**

A full-time supervised work experience with an agency, firm or organization that employs persons in this degree field. This course is used for the second experiential learning session. Grading system is determined by department offering course. Offered every semester. Prerequisite: Junior Standing

**MENG 3915 - Internship with Industry (0-3)**

A work experience with an agency, firm or organization that employs persons in this degree field. This experience may be full time or part-time as required by the industry sponsor. This course is used for the first experiential learning session. Grading system is determined by department offering course. Offered every semester. Prerequisite: Junior standing.

**MENG 4004 - Design I (3)**

Preliminary design of a mechanical system with emphasis on concurrent engineering, human factors, costs analysis, and material selection. The design project may be sponsored by industry or department. Also an emphasis is given to writing the design proposal and presenting it to a committee from the department. Prerequisite: MENG 2600 and MENG 3010

**MENG 4014 - Design II (3)**

Detailed design of a mechanical system, manufacturing the product if feasible, cost estimation, testing and demonstration of the product. A report on the final design is required and also the design should be presented to the faculty and peers from industry. Prerequisite: MENG 4004 Design I.

**MENG 4300 - Heat Transfer (3)**

Prerequisite(s): CSCI-1060 or CSCI 1300; ESCI-2300; ESCI 3200

**MENG 4450 - Principles of Mechantronics (3)**

Introduction to basic components: sensors, transducers, microprocessor-based systems and PLC's. Applications in motion control (AC/DC motors & stepper motors). A major project in electro-mechanical system design and development. Prerequisite: ECE 2001

**MENG 4910 - Co-Op with Industry (0-3)**

A full-time supervised work experience with an agency, firm or organization that employs persons in this degree field. This course is used for the third experiential learning session. Grading system is determined by department offering course. Offered every semester. Prerequisite: Senior Standing

**MENG 4915 - Internship with Industry (0-3)**

A work experience with an agency, firm or organization that employs persons in this degree field. This experience may be full time or part-time as required by the industry sponsor. Grading system is determined by department offering course. Offered every semester. Prerequisite: Senior standing.

**MENG 4980 - Independent Study (0-3)**

Credits to be arranged. Independent Study on a topic in Mechanical

**MENG 5530 - Composite Materials for Structure and Design (3)**

Fiber and resin systems, Composite material properties and characterization, lamina, Laminate, Micro-mechanics, Stress analysis of lamina and laminate, Design of laminate, Failure theories, and Manufacturing of laminate.

Prerequisite(s): ESCI 3100 Undergraduate Mechanics of Solids and AENG 5530 Composite Materials for Structure and Design

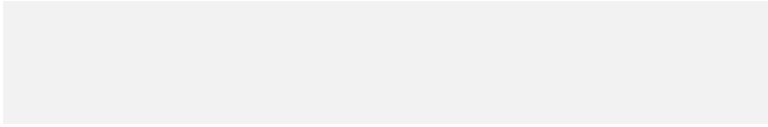
**MENG 5700 - Multidisciplinary Optimization (3)**

Linear and nonlinear programming, unconstrained optimization, constrained optimization, structural optimization of large-scale systems with constraint

## **Biomedical Laboratory Science (BLS)**

### **BLS 1100 - Foundations of Medical Laboratory Science (1)**

The purpose of this course is to describe and illustrate career options available to the Medical Laboratory Science (MLS) and Investigative and Medical Sciences (IMS) graduates. The course includes lectures to present both knowledge associated with the medical and laboratory sciences. No prerequisites required. Co-requisite BLS 1150.



**BLS 4610 - Research Design, Critique & Presentation (3)**

Course focuses on the processes involved in biomedical research, evaluation





**CSDI 5600 - Fluency Disorders (3)**

An overview of normal fluency and exploration of fluency disorders. Specific

**CYTO 4900 - Advanced Practices in Cytology (8)**

Cellular investigation of human samples from all body sites performed in a clinical cytotechnology laboratory setting using advanced techniques and state of the art computer integrated screening tools to screen, accurately recognize, and differentiate normal, benign, and malignant processes. Laboratory techniques, workflow management, quality control and evaluation of results in the interpretation of health/disease status are emphasized. Prerequisite(s): CYTO-4800; Cytotechnology Seniors or Cytotechnology Post-Baccalaureate students.

**Nutrition & Dietetics (DIET)****DIET 1000 - Contemporary Issues in Food and Nutrition (2)**

Students will learn the pathway to becoming a registered dietitian and explore the various roles and responsibilities of registered dietitians in a variety of work settings. The scientific underpinnings of several contemporary nutrition topics will be explored.

**DIET 2080 - Foundations in Nutrition (2-3)**

The study of human nutrition, incorporating biochemical and physiological aspects; investigation of the role of food in normal growth, development and maintenance of body functions. Fall semester. Prerequisite(s): CHEM-1110/1115 (pre) and 1120/1125 (May be taken concurrently)

**DIET 2100 - Nutrition in the Lifecycle (3)**

A study of the physiological and psychosocial changes throughout the lifecycle that influence the nutritional needs of individuals. Spring semester.

Prerequisite(s): DIET-2080; BIOL-1040, PPY-2540.

**DIET 2510 - Principles of Food Preparation (3)**



**DIET 4850 - Mediterranean Diet / Lifestyle (3)**

In depth experience in Farm to Fork cooking in both USA and Italy. Ingredients, cooking styles, culture, and lifestyles will be examined. Particular attention given to the Mediterranean Diet, traditional Mediterranean cooking traditions, organic farms, and markets. Offered every fall.

**DIET 4870 - Crit Read of Res Material I (1)**

Prerequisite(s): DIET-4100 (May be taken concurrently) and DIET-3850

**DIET 4880 - Crit Read of Res Material II (1)**

Assessment and critical analysis of current research papers in various areas of nutrition and dietetics. Emphasis is on examining more complex papers with an analysis of design and advanced statistics of research in the clinical setting. Spring semester. Prerequisite(s): DIET-4150 (May be taken concurrently) and DIET-3850

**DIET 4900 - Culinary Intercession II (1)**

Limited to Culinary Emphasis students. A supervised work experience designed to expand career knowledge while increasing speed, timing, organization, and ability to advanced baking in an approved commercial foodservice and hospitality establishment. Baking science, terminology, equipment, technology, ingredients, weights and measures, and formula conversions are included with concentration on production techniques. This course will begin 2 weeks prior to regular Fall semester courses of Senior year. Prerequisite(s): DIET-3900, DIET-3140, DIET-3190, and DIET-4250.

**DIET 4950 - Culinary Philosophy & Practice (3)**

Limited to Culinary Emphasis students. This course is designed to integrate students culinary training, academic studies, and cooking experiences into various practical applications. Students will plan, prepare, and execute events ranging in scale so that students will understand how to be successful when faced with the various challenges presented. There will be an emphasis placed on both front and back of the house planning and preparation. Spring Semester. Prerequisite(s): DIET-3750, DIET-4900, DIET-4010 & DIET-4270.

**DIET 4980 - Independent Study (1-3)**

Qualified students interested in doing work in specific areas of dietetics or wishing to amplify their knowledge of dietetics may pursue an individualized

**DIET 5480 - Nutrition Education&Counseling (3)**

Educational theories and principles as applied to nutrition education will be studied and applied. Effective approaches for nutrition education programming and evaluation will be examined. This course will also cover counseling theories with a focus on motivational interviewing for the dietetics profession. Students will apply lecture material in providing peer and self evaluations of counseling techniques. Offered in fall. Prerequisites: DIET 2100 Nutrition in the Lifecycle, DIET 4300 Community Nutrition, and DIET 1450 Medical Nutrition Therapy II.



**DPT 5132 - Pharmacology (1)**

This course will present an introduction to pharmacological management in the physical therapy setting. Emphasis will be placed on application of pharmacological information to clinical practice. Students will learn pharmacokinetics, pharmacodynamics, how to find and utilize drug information, and the positive and negative effect of drugs and drug side effects on physical therapy management. (Offered fall only)

**DPT 5133 - Lab Studies & Imaging (2)**

This course covers topics in clinical testing, including clinical laboratory studies; electromyography (EMG); nerve conduction velocity (NCV); radiological studies such as X-ray and computed tomography (CT); magnetic resonance imaging (MRI); and general and vascular ultrasound.

**DPT 5134 - Multi System Management (0-3)**

This course will cover physical therapy examinations, interventions and expected outcomes for integumentary disorders and selected disease processes with multi-system implications. Specific topics include acute care management, post-surgical care, diabetes, peripheral vascular disease, oncology, lymphedema, HIV/AIDS, wounds, and burns.

**DPT 5135 - Cardiopulmonary Conditions (0-7(phede)8(m)-22(a,-)21( )-97iute**





**DPT 6182 - Sem in Adult Neurologic PT (1)**

This seminar provides hands-on experience in the clinic for examinations and interventions for adult patients with neurological conditions and/or injuries. Specific clinical experiences have been arranged across a variety of clinical settings in the St. Louis area. Students will also gain experience as peer instructors by delivering content in applied neuroscience to professional year 2 students. Additionally, students will have classroom sessions with the course coordinator to discuss their clinic experiences and relate their coursework from Neurological Conditions I (DPT5251) and Applied Neuroscience (DPT5149) to each experience.

**DPT 6183 - Seminar in Physical Therapy - Pediatrics (1)**

The purpose of this course is to integrate academic learning with clinical practice in the area of pediatric physical therapy. The course incorporates didactic and clinical components that promote advancement of clinical decision making and practical application skills when working with children and their families. Self-directed, collaborative learning and class participation are essential aspects of the course. Students review the pathophysiology, medical, surgical and pharmacological management strategies for selected neurological, congenital, developmental and/or musculoskeletal disorders in pediatric patients. The clinical component focuses on observation, examination and evaluation of children across multiple settings and diverse patient populations.

**DPT 6184 - Sports Physical Therapy (1)**

This seminar is designed to give student the opportunity to further explore topics related to sports physical therapy. The perspective of the sports medicine team and the roles of the different professions in the care of athletes will be examined. The involvement of the physical therapist in the prevention and treatment of the injured athlete will be emphasized.

**DPT 6192 - Clinical Rotation IIB (0-2)**

Clinical Rotation IIB is comprised of the final 5 weeks of the 10-week clinical assignment started during DPT 6092. Students are assessed by clinical instructors while in the clinic. Students will practice all elements of the patient/client management including all tasks required to manage at least 50% of a caseload at the clinic site.

**DPT 6217 - Professional Development III (1)**

The focus of this on-line course is to assist the student in making a transition from the academic environment to the clinical workforce. Class activities are designed to assist the student in determining individual needs for continued professional development and life-long learning. The student will participate in on-line discussions as well as self-assessment and reflection activities. (Offered spring only)

**DPT 6243 - Applied Evidence-Based Clinical Practice (2)**

In this course clinical interns use principles of evidence-based clinical practice to answer clinical questions which arise during their internship experience. (Offered spring only)

**DPT 6243 - Applied Evidence-Based Clinical Practice (1)**

In this course clinical interns use principles of evidence-based clinical practice

**HIM 3100 - Medico-Legal Aspects (3)**

This course examines the US court system, legal terminology and legal procedures. Specific emphasis will be on the healthcare legislation/regulations, including the Health Insurance Portability and Accountability Act (HIPPA), highlighting confidentiality, privacy, security and use of protected health information; professional and practice related ethical



**MAT 2000 - AT Student Development I (1)**

This course is designed to move the student from thinking about the profession of athletic training to thinking about him/herself as a future professional and a athletic trainer. Students explore the Foundational Behaviors of Professional Practice in Athletic Training. The concept of the Jesuit Mission is expanded to include consideration of the integration of Foundational Behaviors of Professional Practice. Essentials of effective career development including communication skills, critical thinking, professional networking, cultural competence, and time and energy management are addressed.

**MAT 3000 - Athletic Training Student Development (2)**

This course introduces the student to the cognitive, psychomotor and affective skills integral to athletic training. These abilities lay the foundation for the development of competency in clinical practice. They are also necessary for taping, bracing, injury prevention and emergency care.

**MAT 3230 - Exercise Physiology (0-3)**

This course examines types of exercise, muscle physiology and training regimens to improve muscle strength, power and endurance. Cardiovascular and pulmonary responses to exercise and training regimens will be included. Concepts of obesity and its management also will be covered.

**MAT 4970 - Mastery Assurance (0)**

The purpose of this course is to provide students with the opportunity to master course content not mastered in the prior semester. Content will be



**MIT 5410 - Radiobiology and Radiation Protection (2)**

The radiobiology course content is designed to present basic concepts and principals of radiation biology. The interactions of radiation with cells, tissues and the body as a whole and resultant biophysical events will be presented. Discussion of the theories and principals of tolerance dose, time-does relationships, fractionation schemes and relationship to the clinical practice of radiation therapy will be discussed, examined and evaluated. The radiation protection section of this course covers the basic concepts of radiation protection, types of radiation, personnel and facility radiation monitoring, environmental protection, the safe handling of radioactive materials, equipment use, quality control, and how these concepts relate to radiation protection. Radiation safety practices in radiation therapy departments, and regulations that govern the use of radioactive materials in the clinical setting

**MIT 5890 - Clinical MRI Practicum II (0)**

Students will perform wide variety resonance imaging procedures in multiple clinical settings under the direct supervision of qualified medical professionals. Students will interact with patients ranging from infants to geriatrics. Clinical experience will include venipuncture and administration of contrast media. Continuation of Clinical Practicum I.

**MIT 6000 - Masters Seminar I (1)**

This course is the first of three masters level seminar courses that build upon each other, culminating in a scholarly project suitable for publication in a peer-reviewed journal, professional presentation or equivalent. It will emphasize clinical research design including extensive statistical methods and conclusions. The student must select a topic that combines both of their undergraduate and graduate areas of study. Each student is assigned a

**MLS 4611 - Adv Topics & Case Correlations (3)**



**MOT 5030 - Professional Development II (1)**

Professional Development Seminars (PDS) (MOT 5020, 5030, 5040) are a sequential progressive series of seminars throughout the professional level curriculum, the Master of Occupational Therapy (MOT) I and II years. These courses complement the didactic portion of the curriculum by focusing on socialization to the profession through fieldwork, interprofessional experiences, and professional development/service activities. This course will focus on the following topics: inter- and intra-professional collaboration, ethical considerations related to supervision and collaboration, fieldwork preparation, giving and receiving professional feedback, and preparation for fieldwork education.

**MOT 5040 - Professional Development III (1)**

Professional Development Seminars (PDS) (MOT 5020, 5030, 5040) are a sequential progressive series of seminars throughout the professional level curriculum, the Master of Occupational Therapy (MOT) I and II years. These courses complement the didactic portion of the curriculum by focusing on socialization to the profession through fieldwork, interprofessional experiences, and professional development/service activities. This course will focus on the following topics: federal and state regulations impacting occupational therapy practice, liability issues, certification and licensure requirements for occupational therapists, professional organizations, preparation for fieldwork education, and preparation for navigating the job market.

**MOT 5150 - Kinesiology (0-3)**

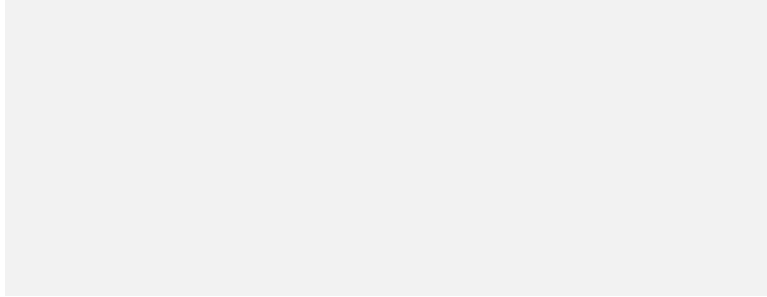
Students learn biomechanical and occupation based approaches across a range of musculoskeletal conditions. Assessment and intervention approaches are applied to congenital and acquired conditions encountered in person of middle age through older adulthood. Lab Required.

**MOT 5170 - Neuroscience in OT (4)**

This course will address the neuroanatomical and neurophysiological bases of sensory perception, emotion, cognition and learning, and movement that are found075 717.37 Tm0(b0.251 i)-5(n)(neur)46c8d(s)-13(i)-aJETQq18.229 ( eop4c

**MOT 5550 - Occupational Therapy for Adults with Neurological Dysfunction (0-3)**

This course is designed to provide students with the therapeutic reasoning to evaluate and treat adults with occupational performance deficits resulting from neurological illnesses and impairments. Building on theories and concepts from prior coursework, students will learn to assess, remediate, habilitate, and rehabilitate, deficits impacting occupational performance and participation. The final product will be the students' understanding of the OT process and best practice in OT, evidenced by the completion of an OT evaluation & development of individualized OT intervention plans that identifies the process for returning a client to their most independent level of function within their environment.



**NMT 4310 - Radiation Physics and Radiation Protection (4)**



## Occupational Therapy (OCTH)

### OCTH 5010 - Foundations of OT: Theories, Domains & Processes (3)

This course will provide OTD students with an overview and synthesis of historical and contemporary perspectives that guide current OT practice. Students in this course will understand and apply fundamental concepts and language used in current OT theories and practice models. Restricted to students applying for the Post-Professional OTD. Offered every summer.

### OCTH 5011 - Fundamentals of Occupational Science (3)

This course introduces future OTD students to basic concepts and themes in occupational science. The course will begin with an exploration of the relationship between occupational science and occupational therapy before moving to the review and application of concepts. Students will learn about the occupational perspective as it applies to topics including development across the lifespan, context, and occupational justice.

### OCTH 6100 - Occupational Science in Practice and Society (3)

This course will examine current trends in occupational science knowledge and their interactions with contemporary healthcare practice and societal developments. By the end of the course, students will be able to articulate and defend the relevance of occupational science knowledge for modern issues of real-world concern. Offered every fall.

### OCTH 6200 - Professional Leadership and Public Policy (3)

This course provides foundational knowledge regarding professional leadership and public policy with specific focus on how each impacts clients and the profession of occupational therapy. At the completion of the course, students will have an increased understanding of the nature of health policy-making, health politics, and current healthcare issues as they advocate for clients and the profession. Offered every spring.

### OCTH 6300 - Conceptualizations and Applications of Occupational In/Justice (3)

This course will explore the relationship of occupational justice, human health and wellbeing, and the Jesuit principle of men and women for and with others. Students will begin by learning about the conceptual development of occupational justice and its relation to the idea of social justice and Jesuit philosophy. Students will then select one real-world example of an occupational injustice and examine its impact on health and wellbeing in local and global contexts. Students will draft a proposal that enfold all course concepts into an intervention that addresses the occupational injustice they have examined.

### OCTH 6400 - OTD Practicum 1 (3)

This practicum course engages students in a supervised, 12-16 week practicum experience at a practice-related site chosen in collaboration with the student's faculty mentor. The practicum is an integral part of doctoral education that facilitates translation of knowledge from the didactic curriculum to practice settings. During this course, students will have the opportunity to apply, analyze, and critique learned ideas in a practice setting, make improvements to existing service delivery processes, and/or contribute to information dissemination. As a practicum experience, this course provides an opportunity for development of post-professional occupational therapy skills through involvement in a practice or advocacy setting.



**PAED 5320 - Prin/Prctcs of Neurology (3)**

The neurology course provides an integrated approach to understanding the pathophysiologic basis of disorders of the central and peripheral nervous system as well as the pharmacological rationale for their therapy. At the same time, students are introduced to the clinical approach to these disorders, including physical examination, clinical, laboratory, and radiographic findings and various management methods.

**PAED 5330 - Essentials of Surgery (2)**

The fundamentals of surgical disease are explored with discussions on the etiology, pathophysiology, clinical manifestations and appropriate management of major and minor surgical conditions and care of the acutely injured and critically ill patient. Topics are discussed with emphasis on clinical presentation and pre- and post-operative management. Laboratory sessions



**Nursing (NURS)**

**NURS 1400 - Introduction to Nursing (1)**

This course introduces the student to nursing as a profession. Various roles and functions of the nurse are explored. Emphasis is placed on the





**NURS 3495 - Child Health Nursing (3)**

This course uses a person-centered, family-centered and culturally sensitive approach to the health care needs of adults, and older adults. Emphasis is placed on theoretical knowledge and evidence-based practice findings as the basis for nursing strategies to promote, maintain, and restore health. An interprofessional team approach is emphasized in the delivery of safe, effective, and quality care. Prerequisite: NURS 3575 with a grade of C or better.

**NURS 3495 - Child Health Nursing (0-3)**

This course uses a person-centered, family-centered and culturally sensitive approach to the health care needs of adults, and older adults. Emphasis is placed on theoretical knowledge and evidence-based practice findings as the basis for nursing strategies to promote, maintain, and restore health. An interprofessional team approach is emphasized in the delivery of safe, effective, and quality care. Prerequisite: NURS 3575 with a grade of C or better.

**NURS 3565 - Adult/Older Adult Health I (0-4)**

This course uses a person-centered, family-centered and culturally sensitive approach to the health care needs of adults, and older adults. Emphasis is placed on theoretical knowledge and evidence-based practice findings as the basis for nursing strategies to promote, maintain, and restore health. An interprofessional team approach is emphasized in the delivery of safe, effective, and quality care. The course emphasizes acute health problems of adults and older adults. Prerequisite(s): NURS 2500; NURS 2515; NURS 2520; NURS 3200; NURS 3330; NURS 3360 all with a grade of C or better.

**NURS 3575 - Adult/Older Adult Health II (0-4)**

This course uses a person-centered, family-centered and culturally sensitive approach to the health care needs of adults, and older adults. Emphasis is placed on theoretical knowledge and evidence-based practice findings as the basis for nursing strategies to promote, maintain, and restore health. An interprofessional team approach is emphasized in the delivery of safe, effective, and quality care. The course emphasizes chronic health problems of adults and older adults. Prerequisite: NURS 3565 with grade of C or better.

**NURS 3807 - Conceptual Framework for Practice (3)**

Lecture 3 hours per week. This course introduces the Registered Nurse Option student to the Conceptual Framework, nursing theories and the research process as a scientific basis for practice. Health promotion concepts will be incorporated. Students will be assisted in reconstructing and expanding their own theory base for the practice of nursing.

**NURS 4100 - Leadership and Management (2)**

This course focuses on the development of the nurse as a leader at the microsystem level. The concepts of delegation, motivation, negotiation, and problem-solving are addressed within an organizational context. The use of evidence in process improvement for quality care is emphasized. Interprofessional teamwork and health information technology are further explored as mechanisms to promote cost-effective, quality outcomes.

**NURS 4105 - Leadership and Management (2)**

This course focuses on the development of the nurse as a leader at the microsystem level. The concepts of delegation, motivation, negotiation, and problem-solving are addressed within an organizational context. The use of evidence in process improvement for quality care is emphasized. Interprofessional teamwork and health information technology are further explored as mechanisms to promote cost-effective, quality outcomes. Pre/Corequisites: NURS 2705; NURS 3565

**NURS 4107 - Leadership and Management for RNs (3)**

This course focuses on the development of the nurse as a leader at the microsystem level. The concepts of delegation, motivation, negotiation, and problem-solving are addressed within an organizational context. The use of evidence in process improvement for quality care is emphasized. Interprofessional teamwork and health information technology are further explored as mechanisms to promote cost-effective, quality outcomes.

**NURS 4147 - Research and Evidence Based Practice (3)**

In this course, research is introduced as a method of inquiry and as a foundation for evidence based clinical decisions. Fundamentals of research methodology will be presented. Developing, evaluating, and applying an evidence-base to address nursing care issues will be explored. Barriers to implementation of evidence based practice and strategies to address those barriers will be considered from an individual and an organizational perspective. The role of the nurse in affecting evidence based change in practice will be discussed. Offered every fall.

**NURS 4200 - Nursing Immersion Practicum (0-4)**

This course builds on prior nursing courses and provides the student with a practicum experience in managing patients and environments in selected specialty settings. This precepted clinical experience focuses on assessments, interventions, and outcomes unique to these populations. The student becomes an integral part of the interprofessional team with responsibility for the efficient management of care that produces cost effective, patient-centered outcomes. Skills related to enhancing communication and information management are refined.

**NURS 4300 - Complex Care Theory (2)**

The course builds on nursing courses and focuses on complex acute and chronic conditions, some of which may result in death. An evidence based focus is used to support assessments, clinical judgment and effective, efficient nursing interventions. Life span and developmental factors, cultural variables

**NURS 4507 - Comprehensive Nursing Practice (4)**

This clinical course focuses on the analysis of health care needs of clients and the application of organizational and management theories. Students are expected to demonstrate increased competence in a variety of nursing roles, including care giver, teacher, advocate, and collaborator. Students will manage the nursing care of individuals, families, and groups at various points on the health-illness continuum. Prerequisite(s): NURS-3430, NURS-3440.

**NURS 4600 - Pharmacology in Nursing (3)**

This course develops the student's knowledge of the nurse's role and responsibilities in drug therapy based on application of concepts from nursing and pharmacology sciences. Legal, ethical, and life span considerations will be presented as they apply to the nurse's role in drug therapy. The student will have the opportunity to study groups of drugs using a structured, systematic approach that includes general principles of drug activity, major actions, therapeutic effects, and adverse reactions. The student will learn to apply the nursing process to the care of the patient receiving drugs in a variety of clinical situations.

**NURS 4810 - Topics in Pediatric Nursing (2-3)**

Offered periodically in spring.

**NURS 4819 - Roles of the Nurse Case Manager/Care Manager (2-3)**

This course facilitates critical examination of the practice of integrated case management and caremanagement. Using a case study approach, critical thinking skills will be fostered to plan for and address the care needs of the patient with complex health needs. Students will utilize tools and resources commonly used by case managers and care managers to assess individual patient care needs, population health, develop a plan of care, and to coordinate patient care throughout the care continuum. Offered periodically in spring.

**NURS 4823 - Intro to Forensic Nursing (2-3)**

The course is an introductory survey course that includes the evolution of the role, education, subspecialties, and credentialing within forensic nursing. Theoretical, ethical, legal and sociocultural issues in forensic nursing including interpersonal violence, sexual assault, death investigation, and disaster management are explored. Concepts of forensic nursing as well as theories and applications are presented. Offered periodically in spring.

**NURS 5010 - Nursing Strategies in Physiological Health Alterations (0-6)**

Building on concepts learned in previous courses, this course uses a lifespan approach in the study of clients experiencing alterations in health. Emphasis is placed on theoretical and evidence based knowledge as the basis for nursing strategies to promote adaptation of the individual and family. The student applies theoretical knowledge in the care of clients in simulated client settings. Field experiences provide the student with the opportunity to interact with clients in actual patient care settings.

**NURS 5020 - Health Care Systems & Policy (3)**

This course examines the environment in which nursing and health care is provided. Health care delivery systems and the organizational theories and behaviors involved in those systems will be introduced. The effect of health care policy in determining accessibility, accountability and affordability will be investigated. Financing of health care will be discussed and basic business principles will be introduced. The role of the advanced generalist nurse in the provision of quality cost-effective care in a variety of health care systems will be emphasized.

**NURS 5025 - Informatics and Quality Improvement (3)**

This course examines the process for reviewing, monitoring, improving and evaluating health care services. Health services accreditation standards will be explored. The role of information technology in providing data for the documentation and evaluation of client outcomes will be emphasized. Basic principles of epidemiology will be introduced. Quality improvement models will be described. The role of the advanced generalist nurse in developing and implementing performance improvement plans will be examined.

**NURS 5035 - Foundations in Nursing Care (0-3)**

This course focuses on the use of clinical judgment in the application of evidenced based therapeutic interventions and technologies in providing direct care to patients across the lifespan. The social, legal, ethical, cultural and interprofessional context of clinical decision making in nursing is discussed.



**NURS 5290 - Advanced Clinical Studies II: Women and Children (0-5)**

This course focuses on the theoretical and scientific bases for health promotion, maintenance, and management in the primary care of women, expectant families, and children (ages 0-21 years). Well woman care, family planning, and reproductive tract disorders commonly seen in primary care will be studied. Care of children with minor acute and selected stable chronic health problems also will be addressed. Trends in health care, ethical issues and the socioeconomic and political environment of women, expectant families, and children are analyzed to optimize the management of care. A practicum component is required. This course is designed for the family nurse practitioner role in the primary care setting.

**NURS 5310 - Critical Appraisal of Technology: Acute Care (3)**

This course evaluates technologies utilized in the acute care setting in



**NURS 5830 - Nursing Informatics Practicum (3)**

**NURS 6806 - Multivariate/Multivariable Statistics in Nursing Research (3)**

This course uses a general linear models approach to data analysis with multivariate/ multivariable techniques, including ANOVA/MANOVA methods for repeated measures, multiple regression, logistic regression, factor analysis, and introduction to model fitting techniques. Emphasis is given to



## Health Data Science (HDS)

### HDS 5130 - Healthcare Organization, Management, and Policy (3)

The course is designed to give students frameworks, analytic tools, informational resources, and specialized expertise in health administration and health policy. This background will prepare students for professional work in the health sector in medical and health settings, as researchers, managers or program developers, or as professionals responsible for analysis, evaluation, or advocacy. The course emphasizes knowledge of the organization and financing of health care, politics, the influence of Medicare and Medicaid policies, and the implications of health policy for diverse populations. The course will particularly focus on the implications of the recently enacted health reform, the Patient Protection and Affordable Care Act (ACA) of 2010. Offered in spring.

### HDS 5210 - Programming for Health Data Scientists (3)

Students will be introduced to concepts in computer programming using the Python programming language. Students will learn to conceptualize steps required to perform a task, manipulate files, create loops, and functions. By the end of this course, students will have a basic understanding of computer programming, a working knowledge of the Python programming language, and they will be able to share their scripts to collaborate with other team members.

### HDS 5230 - High Performance Computing (3)

This course is needed to give Health Data Science students the skills they will need to work with big healthcare data and modern high-performance computing environments during their careers. Prerequisites: HDS 5310 and HDS 5210, or equivalent.

### HDS 5310 - Analytics and Statistical Programming (3)

This course will serve as a foundation for subsequent coursework in the Health Data Science degree program. Students will learn statistical concepts of probability theory, sampling theory, null hypothesis significance testing, and Bayesian estimation. They will develop expertise in the R statistical programming language and Markdown syntax, and learn to collaborate with one another using the Git and GitHub version-tracking/sharing tools. By the end of this course, students will have a basic knowledge of statistical concepts, be able to execute analyses in R, share work with collaborators, and document their results. Offered in spring.

### HDS 5320 - Inferential Modeling (3)

Students will learn to conceptualize research questions as statistical models, and parameterize those models from real-world data. The course will start by introducing the linear model, then expand into generalized linear models, nonlinear models, mixed and multilevel models, and Cox survival models. Students will have a working knowledge of how to use statistical models to gain an understanding of the influence of individual predictor variables on health outcomes. Offered in summer. Prerequisite: HDS 5310 Analytics and Statistical Programming

### HDS 5330 - Predictive Modeling and Machine Learning (3)

In contrast to the statistical modeling course which focuses on understanding the influence of variables on outcomes, this course will focus on predicting individual health outcomes using modern automated model development algorithms. By the end of this course, students will be able to create predictive analytics using popular machine learning packages in R and Python. - Software competencies: R and Python Offered in spring.

### HDS 5960 - Capstone Experience (3)

This course is designed to offer data science students an opportunity to practice their skills in an industry setting, to learn the roles that various members of a data science team play in an organization, and to begin building a network of professional contacts and references. Prerequisites: ORES 5300, HDS 5210, HDS 5310

## Outcomes Research (ORES)

### ORES 2300 - Survey of Epidemiology in Health Services Research (3)

This course introduces methods and interpretations of measures of frequency, association, error, bias and health impact. Epidemiological methods are presented within the context of assessing cost, quality, and access of the health care system. Employing mix of lecture, discussion, and computer-based laboratory assignments, students will explore the relationships between policy, medical care practices, and scientific understanding via epidemiology.

### ORES 2310 - Introduction to Clinical Medicine (3)

This course addresses the fundamentals of diagnosis and treatment related to the practice of medicine for leading diseases. Students will be introduced to the basic science concepts of medicine, including anatomy, physiology, microbiology, and genetics in the context of evidence-based screening and treatment guidelines used by medical subspecialties. Class sessions, taught by medical school faculty, employ a mix of lecture, discussion, hands-on demonstrations, and care simulation. Student assignments include analysis of diagnostic criteria and treatment options available to clinicians and development of patient-directed communications about medication use.

### ORES 2320 - Interprofessional Health Outcomes (2)

**ORES 5160 - Data Management (3)**

This course will cover the basic skills necessary for maintaining databases as well as ensuring data quality and manipulating data. The course will also introduce an experiential component in data base design and management. The course is designed for health outcomes research masters students and doctoral level students in public health. This course contributes to the First Dimension by preparing students for advanced study in areas related to

ORES 5560 - R Programming (3)

## **Philosophy & Letters (PLJ)**

### **PLJ 4900 - Integration Seminar (1-3)**

Integration, application, and deepening of paired courses in philosophy and theology. Restricted to Jesuits and students in the College of Philosophy and Letters.

### **PLJ 4960 - Systematic Synthesis (3)**

This course, principally for students in the College of Philosophy and Letters, serves as a 'capstone course.' Students write small papers on philosophy of human nature, epistemology, ethics, and philosophy of God and mutually

## **Applied Analytics (AA)**

### **AA 5000 - Foundations of Analytics (3)**

This course is an introduction to the field of Analytics, with an emphasis on its applications in different domains of business and organizational operations.

Concepts covered include Data; Information; Knowledge; Big Data and Analytics; Data Governance; Information Visualization and Representation; Evidence-Based Decision-Making; Information Retrieval; and Legal, Ethical and Privacy-related issues associated with Analytics.

### **AA 5050 - Programming & Problem Solving (3)**

A survey of the computer programming concepts used to solve problems within the study of informatics. The course will emphasize logical problem analysis, program development techniques, data organization and user interface concepts used to develop informatics applications.

### **AA 5100 - Information Retrieval (3)**

This course provides a foundation in retrieval of information from different types of data sources, such as Relational Database Management Systems (RDBMSS); Key-Value Data Stores; and Semi-Structured and Unstructured Text. Students develop the key competencies necessary for designing data structures associated with each of the above-mentioned data sources and in accessing data stored in those sources. The primary areas of emphasis will be RDBMSS and Structured Query Language. Key-value data stores and data stores for storing unstructured data will be introduced and the problem areas where they are applicable will be explained and contrasted with those involving RDBMSS.

### **AA 5150 - Evidence-Based Decision Making (3)**

This course provides the essential foundation of how one uses data to change the organization through and evidence-based decision making process.

Students will have the opportunity to learn about and practice critical evaluation of data across a variety of disciplines. Topics will include logic models, decision making models, cybernetic systems, project/program evaluation, and ways to promote learning and innovation. Prerequisite: IF 510.

### **AA 5200 - Visualization, Feedback and Dissemination (3)**

This course will expose students to visualization and presentation techniques designed for the interpretation of data, improved comprehension, communication, and decision making. Students will use current software tools to analyze data, design interfaces and create interactive visualization and presentation applications. Topics will include data and image models, design and evaluation of reporting structures, maps and mapping, document collections, object interaction, feedback processes, and scientific and business simulations. Prerequisite: IF 515.

### **AA 5221 - Applied Analytics & Methods I (3)**

This course focuses on the elements of research design and descriptive statistics. Topics include different types of research designs, probability theory, reliability and validity, and basic descriptive statistics. At the conclusion of this course, students will understand the basics of research design and how

**AA 5962 - Applied Analytics Master's Project - II (1)**

This is the second course in a three-part sequence of courses that together require students to design and implement a master's research project in analytics, demonstrating their mastery of the knowledge and skills they have acquired over their course of study in the MS Applied Analytics program. At the end of this credit hour, students will have created a research design and its associated implementation plan for addressing the organizational problem that was identified and described in AA 5961. Permission must be granted by

**AVM 3750 - Helicopter Flight Operations IV (2)**

This course is the fourth course in the flight sequence. Instruction is provided to complete the Instrument Rating. Restricted to students who are coded as Helicopter Preparation students in Banner. Permission to register is required by the department. Prerequisite(s): AVM 3500 and Permission of Program Director. Offered annually as needed.

**AVM 4000 - Principles of Flight Instruction I (2)**

Fundamentals of teaching and learning; teaching methods; aerodynamics; flight training syllabus; maneuvers and procedures. The student is prepared to take the two flight instructor knowledge tests upon successful completion of this course. Restricted to students who are coded as Helicopter Preparation students in Banner. Permission to register is required by the department. Prerequisite(s): AVM 300 and Permission of Program Director. Offered annually as needed.

**AVM 4250 - Helicopter Flight Operations V (2)**

Instruction leading to flight instructor certificate with Helicopter rating. Prerequisite: commercial pilot certificate. Restricted to students who are coded as Helicopter Preparation students in Banner. Permission to register is required by the department. Prerequisite(s): AVM 3750 and Commercial Pilot Certificate with Instrument Rating and Permission of Program Director. Offered annually as needed.

**AVM 4500 - Principles of Flight Instruction II (2)**

This course will provide the appropriate knowledge to understand the elements of teaching instrument and multiengine flight. The student will prepare lesson plans and practice various methodologies appropriate for advanced flight instruction. Restricted to students who are coded as Helicopter Preparation students in Banner. Permission to register is required by the department. Prerequisite(s): Possession of the Certified Flight Instructor Airplane Certificate and Permission of Program Director. Offered annually as needed.

**AVM 4750 - Helicopter Flight Operations VI (1)**

Instruction leading to the addition of an instrument rating to a flight instructor certificate. Restricted to students who are coded as Helicopter Preparation students in Banner. Permission to register is required by the department. Prerequisite(s): AVM 4250 and Commercial Flight Instructor Certificate and Permission of Program Director. Offered annually as needed.

**AVM 4800 - Peer-Mediated Instruction (1-6)**

This course provides upper level students with supervised opportunities to integrate theory and practice by working with teachers in classrooms or other field settings to mentor beginning level students within the discipline of helicopter ground and flight operations. Peer-mediated Instruction and Support will emphasize the development and application of teaching skills that can influence critical thinking and applied hands-on learning. Restricted to students who are coded as Helicopter Preparation students in Banner. Permission to register is required by the department. Permission of Program Director required. Offered annually as needed.

**Biology (BIOL)****BIOL 1375 - Introduction to Cellular Biology (3)**

This course explores the basic concepts of cellular biology and genetics, stressing molecular structure, cellular interactions, energy metabolism, and heredity. These principles will be introduced through the scientific method of research and applied to the relevance of biology to global issues. Interpretive and analytical skills explored through the scientific method can be applied to future academic course work and in professional settings.

**BIOL 1385 - Introduction to Ecology and Evolution (3)**

This course explores the basic concepts of ecology and evolution, through phylogenetic relationships, organismal form and function, biological interactions and conversation biology. These principles will be introduced through the scientific method of research and applied to the relevance of biology to global issues. Interpretive and analytical skills explored through the scientific method of research and applied to the relevance of biology to global issues. Interpretive and analytical skills explored through the scientific method can be applied to future academic course work and in professional settings.

**BIOL 1405 - Biology of Health and Disease (3)**

Topics include: nature of life, chemical basis of life, basic foodstuffs, vitamin diseases caused by microbes, plants, and animals, drugs and the mind, and biology and the future of humanity. For non-science majors. Satisfies Arts and Sciences Core Science requirement.

**BIOL 3205 - Microbiology (3)**

This course is a general introduction to the diversity, ecology, growth and genetics of microorganisms, including topics of medical microbiology. This foundational course is for students in the School of Nursing and Allied Health. Prerequisite(s): Any BIOL-1000/2000 level course. (Offered periodically)

**BIOL 3305 - The Biology of Plants and Animals (3)**

This course explores the concepts of plant and animal biological interactions in the context of conservation and biodiversity. In addition to learning about plant and animal biology, students will learn how to read, analyze and interpret scientific research and data. They will also design ecological experiments and make predictions about how scientific research affects conservation efforts. The knowledge and analytic skills gained in this course can be applied to future academic course work as well as in professional







**CMMK 2010 - Principles of Effective Communication (3)**

This course surveys major concepts, theories, and research approaches in the study of human communication(s). Students will examine the ways communication(s) shapes our experience of the world, the role of communication(s) in shaping personal identities, and establishing and maintaining interpersonal relationships in professional settings and organizations. The course covers basic human communication processes in the contexts of relationships, groups, organizations, culture, as well as the interface of human and mediated interaction(s), with an emphasis on communication (i.e., communication technology, mass media and society, visual type communications, etc.) instead of just human communication.

**CMMK 2930 - Special Topics in Communication (3)**

Special topics in the communication profession or discipline. Offered as needed.

**CMMK 3010 - Integrated Corporate Communication (3)**

In this course, students will plan and implement online communication strategies designed to meet an organization's goals. This course will take a strategic approach, in which students define the organization's objectives, analyze audiences, select appropriate digital communication channels, create and launch digital content, and evaluate the effectiveness of their efforts.



**ENGL 3275 - American Literary Traditions to 1865 (3)**

Examines representative works in American literature from the beginnings to 1865 in light of major historical and cultural developments. Strongly recommended for majors. Fall semester.

**ENGL 3285 - American Literary Traditions after 1865 (3)**

Examines representative works in American literature from 1865 to the present in light of major historical and cultural developments. Strongly recommended for majors.

**ENGL 3295 - American Literary Traditions: Special Topics (3)**

Special topics in American literary traditions: content varies.

**ENGL 3335 - World Literary Traditions III (3)**

Studies selected fiction, drama or other topics from a diverse range of authors. Offered occasionally.

**ENGL 3355 - Selected Major British Authors (3)**

A study of several major British writers. Offered occasionally.

**ENGL 3515 - Special Topics: (3)**

Cultural and Interdisciplinary Studies: This course will focus on literature as seen from special viewpoints and perspectives.

**ENGL 3535 - African American Literary Tradition: Special Topics (3)**

Special topics in African American literary traditions: content varies.

**ENGL 3545 - Literature of the African Diaspora (3)**

An introduction to the fiction and poetry of Black African and African - American writers.

**ENGL 3565 - Ethnic American Literature (3)**

Examines the ways in which ethnic American writers tell and write stories, and what "ethnic" and "American" mean as concepts. Offered occasionally.

**HMG 4960 - Hospitality Capstone (3)**

This course offers a theoretical and practical approach to effectively managing a hospitality organization. Reflective writing allows application of critical thinking skills in regards to defining and refining 9(ap)7(pi)0sional Studies, Scho



**OSTD 2935 - Special Topics (1-4)**

Prior approval of sponsoring professor and Program Director required

**OSTD 2985 - Independent Study (1-4)**

Prior approval of sponsoring professor and Program Director required

**OSTD 3005 - Organizational Foundations (3)**

An introduction to the Organizational Studies Major. This course will cover theory and practice within organizational management and organizational behavior at the individual, interpersonal, team, and organizational levels. A general understanding will also be gained in the areas of accounting, human resources, marketing, law, and leadership. Students will become more familiar with library resources needed for successful completion of the courses in the OS major. The course will be taught using lecture, discussion, and experiential exercises and will promote the synthesis of knowledge across the OS curriculum.

**OSTD 3205 - Interpersonal Relations in Org (3)**

An examination of the knowledge and skill necessary to perform effectively in professional relations. Students will gain a deeper understanding of interpersonal relationships in organizations framed in ethical contexts related to perception, impression management, managing diversity, self disclosure, coaching, conflict management, influence, power, and politics. Students will complete self-assessments and engage in skill-building activities to learn how to effectively manage relationships within organizations while using Communication Improvement Plans.

**OSTD 3305 - Team Dynamics (3)**

A study and application of team and small group behavior in organizations. Students will gain a deeper understanding of team structure, processes, and performance outcomes including topics like team types and stages, member roles, leadership, and decision-making. Using a self-directed work team environment, students will complete a team project demonstrating concepts and processes within team dynamics.

**OSTD 3935 - Advanced Special Topics (3)**

Prior approval of sponsoring professor and Program Director required.

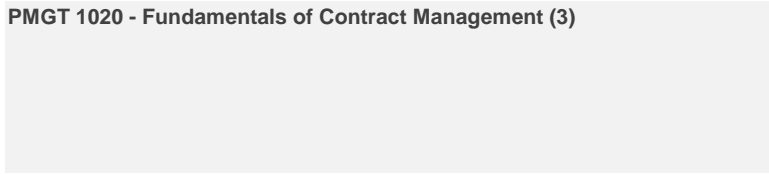
**OSTD 3985 - Advanced Independent Study (1-4)**

Prior approval of sponsoring professor and Program Director required.

**OSTD 4105 - Concepts & Theories of Leadership (3)**

Promotes leadership development through the study of leadership theory and

**PMGT 1020 - Fundamentals of Contract Management (3)**





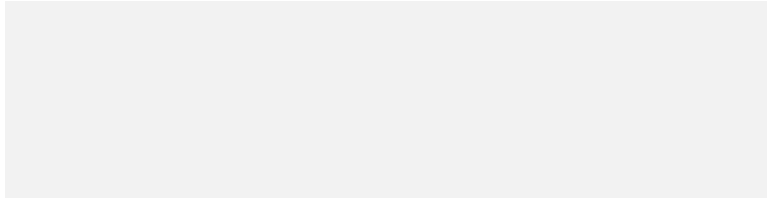




**SSI 1500 - Foundations of Security and Strategic Intelligence (3)**

An introduction to the program of study, providing the student with a foundation for the study of security and intelligence by identifying security concepts (securing humans, tangible assets, and information), intelligence concepts (the cycle of intelligence: collection, processing, analysis, dissemination, feedback/utilization), and the roles of security and intelligence professionals within corporate and governmental organizational contexts.

Prerequisites: None



**SSI 4650 - Law Enforcement Administration (3)**

The course provides an in-depth investigation of the nature, structure, and administrative processes of law enforcement organizations, from local to state



**BSDP 5105 - Medical and Public Health Intelligence (3)**

This course introduces students to the rationale for the emerging role of the public health and medical communities in the intelligence gathering, analysis and dissemination process. Focusing on early detection of emerging physical threats and novel/emerging infectious diseases it will give the students the requisite knowledge and skills to provide the homeland security community with threat indications and warnings. Students will be given the analytical tools to allow them to gauge the impact of physical threats that would result in mass casualties and novel/emerging infectious diseases. They will be expected to develop and recommend rational and viable courses of action to those threats.

**BSDP 5106 - Disaster Communications and Media Relations (3)**

This course will provide an overview of crisis communication challenges associated with disasters, including basic human communications and communication needs, the impact of stressors in communications, risk communications to communities and to crisis communications. Students will learn the theoretical foundations of risk communication, how to apply those principles during a public health crisis, and how to formulate and institute appropriate communications plans for a variety of audiences and disaster response organizations. (Offered annually)

**BSDP 5200 - Writing for Intelligence (3)**

This course is designed to provide students with the writing skills required to clearly, concisely and correctly deliver to end-users basic, current and estimative intelligence products. Students will be trained in the process of collecting, collating, analyzing, disseminating and evaluating intelligence products. The course emphasizes the importance of communicating the analyst's evidence based judgments in a clear, concise and easily understandable manner. It is designed to develop and refine the student's critical thinking skills and their ability to translate these skills into an actionable analytical product through the production of Actionable Intelligence Briefings and Travel Assessments.

**BSDP 5201 - Terrorist Organizations and Their Motivations (3)**

This course is designed to provide students a broad understanding of terrorist organizations and their motivations. History of terrorism, current movements and organizations (both domestic and international) will be covered. Emphasis will be placed on terrorist use of chemical/biological/radiological/nuclear weapons of mass destruction. (Offered annually)

**BSDP 5203 - Disaster Planning for Infectious Disease Disasters (3)**

This course provides an overview of strategies for and challenges to planning for all types of disasters; emphasis is placed on biosecurity emergencies such as bioterrorism and outbreaks of emerging infectious diseases. Content includes tools and resources needed to develop and/or evaluate a facility or community all-hazards response plan and create exercises to test this plan. Prerequisite: BSDP 572. (Offered annually)

**BSDP 5204 - Epidemiological Methods and Infectious Disease Surveillance (3)**

Through audio lectures and readings, this course will present the student with the descriptive and analytical tools of epidemiology and surveillance. The student will analyze a data set using the epidemiological software package Epi Info. Students will participate in weekly internet discussions and analysis of problem sets. (Offered annually)

**BSDP 5205 - Behavioral and Cultural Aspects of Disasters (3)**

This course examines the behavioral and cultural implications of terrorism and other disasters. Students will study a range of adaptive and abnormal responses to catastrophic events. Cultural and psychosocial sources of resilience to terrorism will be reviewed. (Offered annually)

**BSDP 5206 - Disaster Management and Risk Analysis (3)**

This course will give the student an overview of the importance of biosecurity and the performance of vulnerability and risk assessments. It will also teach them the skills necessary to be a competent manager/leader during an emergency. Management case studies will be used to help students identify limits to their knowledge and to help them recognize when they need to obtain additional resources. (Offered annually)

**BSDP 5208 - Facing the Challenge of International Bioterrorism (3)**

This course will examine bioterrorism- the hostile infliction of disease, and how National and Global governance should manage the challenges it raises. The issue will be addressed from a variety of perspectives including: political, legal, medical and public health, with a special focus on international cooperation in dealing with bioterrorism.

**BSDP 5209 - Emerging Infections: Epidemiology and Public Health Importance (3)**

This course will present to the student an overview of Emerging Infectious Diseases, not only in the United States, but internationally. The course will lead off with an overview of the topic, emphasizing topical issues and concerns. Selected topics in order of importance to public health will be examined, with an emphasis on the epidemiology of the infection and its public health impact, either potential or actual.

**BSDP 5210 - Preparing for Disasters: Resiliency and Stress Inoculation (3)**

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**BSH 5100 - Health Promotion Program Planning (3)**

Following the general framework of the PRECED-PROCEED planning model, this course explores the principles, theories, and essential steps of the health promotion planning process. Content includes a detailed review of the methods used in assessing. In this course, the process and methods of evaluation will be framed in terms of 'quality assurance', that is, documenting the extent to which program actions are implemented in accordance to stated objectives. Offered annually.

**BSH 5200 - Social Ecology of Public Health (3)**

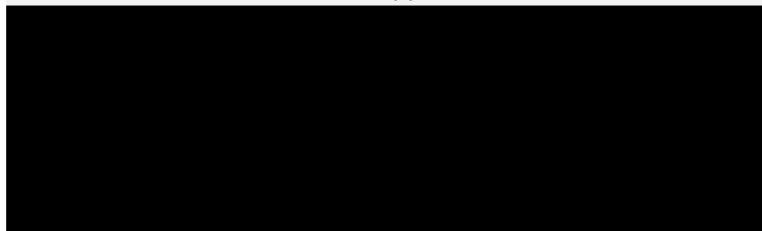
Theories of behavior inform understanding, design and assessment of programs and policies seeking to influence individual choices, behaviors, and population health outcomes. Individual-level determinants of behavior depend upon determinants at multiple levels of the social ecological model, namely, interpersonal and social influence, organizational and community settings, and structural, cultural and political forces. This course examines contributions and intersections of these environmental determinants with behavioral and health outcomes. The course emphasizes application of social ecological theoretical concepts through critique of research, as well as through the program planning process, including formative research, program and policy design and development and impact assessment. Prerequisite: BSH 5000

**BST 3200 - Applied Biostatistics II (3)**

Linear regression (parameter estimation and tests, confounding, interaction, model building and assessment of fit, diagnostics and remedial measures,);



**BST 5980 - Graduate Reading in Biostatistics (1-3)**

**CCJ 3200 - Ethics in Criminal Justice (3)****CCJ 3300 - Corporate & White Collar Crime (3)**

This course presents information on the various types, causes, and measurement of white-collar/corporate criminal offenses. Students will understand and consider the competing theories currently used to explain white-collar/corporate criminality as well as explore the use of a myriad of criminal punishments to prevent/deter corporate and personal misconduct and sanction this kind of behavior should it occur. The course also provides illustrations of different key cases along with their financial and social costs.

**CCJ 3350 - Understanding Serial Killers (3)**

This course examines the phenomenon of serial killers in both theory and practice. The course also examines the extent to which criminological theory can explain observed behavior in serial killers. In this course we will also scrutinize how law enforcement deals with serial killers and how law enforcement can optimize the chances of apprehension through the application of modern and conventional investigative techniques.

**CCJ 3400 - Victimology & Victimization (3)**

This course provides students with a comprehensive introduction to the study of victims of crime. Course materials cover a broad variety of victim-related topics, including: perspectives on and explanations of victimization, various patterns of victimization, social characteristics of victims, victims' roles in criminal offending, victims' treatment by criminal justice decision makers (e.g., police, attorneys, judges), and efforts designed to reduce to the various consequences associated with being a crime victim.

**CCJ 3401 - Prisons in American Culture (3)**

Using history, social theory, film, fiction and autobiography, the course surveys the cultural history of incarceration in America, and examines the place of incarceration in American culture.

**CCJ 3500 - Race & Crime (3)**

This course will examine the distribution of crime within subgroups in American society and the role of criminological theory and empirical evidence in the explanations of criminality. The course will provide students the opportunity to critically assess the nature of the association between race/ethnicity and justice. Using an experiential learning model, students will participate in service learning in the St. Louis metropolitan area to understand how social conditions may also contribute to the associations between



**EOH 5290 - Environmental and Occupational Laboratory (3)**

**EPI 5280 - Perinatal Epidemiology (3)**

Issues related to the perinatal period from the framework of epidemiologic methods will be examined in the course through critical review of



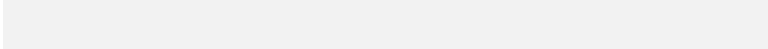






**PHS 6951 - Special Study for Exams: Written Foundation (0)**

PhD students in Public Health Studies are to enroll in the semester in which they intend to take their Foundations Written Exam. Prerequisite: PHS 6050.



**PUBH 5620 - Politics and Public Health Advocacy (3)**

Public health is inherently a political discipline. Practitioners require an

**SWRK 5701 - Social Justice: Human Liberation & Community-Building (3)**

This course explores the meaning of social justice, community-building, human liberation and environmental parity within the context of social work practice. Based on social work's historical mission of intervention in high-risk communities while advocating for social reform, this course is aimed at teaching students the history, theory and practice realities of community-building locally and globally.

**SWRK 5702 - Social Policy (3)**

This course focuses on social policy within the context of its historical development and its current functions within contemporary society. It examines the substance of policy choices, the values and beliefs that underlie these choices, the political process through which the choices are made, and the potential roles of social workers in that process.

**SWRK 5703 - International Social Work (1-3)**

These courses are offered in a rotation in the summer session or January intercession. Section 04-The Ghana Experience-This is a two week experiential course in Ghana, West Africa, which features concentrated study, lectures, and interactions with the people of Ghana. The course involves an in-depth examination of global, social, and economic issues of development; and explores the agencies, elements, and patterns of responses used to address hunger, health care, education and other issues impacting the people of developing countries. Section 05-Resources and Distributive Justice Issues in India-The program is divided into two settings, urban and rural. In approximately half the course, students will study urban issues through lectures and fieldwork in Mumbai. In the second half of the course, students will examine rural issues in the same format in Dahanu. The program content includes Indian political, social and economic history and current social and environmental issues. Fieldwork in both settings provide students with practical hands-on experience.

**SWRK 5703 - International Social Work (3)**

These courses are offered in a rotation in the summer session or January intercession. Section 04-The Ghana Experience-This is a two week experiential course in Ghana, West Africa, which features concentrated study, lectures, and interactions with the people of Ghana. The course involves an in-depth examination of global, social, and economic issues of development; and explores the agencies, elements, and patterns of responses used to address hunger, health care, education and other issues impacting the people of developing countries. Section 05-Resources and Distributive Justice Issues in India-The program is divided into two settings, urban and rural. In approximately half the course, students will study urban issues through lectures and fieldwork in Mumbai. In the second half of the course, students will examine rural issues in the same format in Dahanu. The program content includes Indian political, social and economic history and current social and environmental issues. Fieldwork in both settings provide students with practical hands-on experience.

**SWRK 5704 - Spirituality in Clinical & Healthcare Practica (3)**

This course provides a framework for examining religious experience within the context of social work values. The purpose is to develop knowledge and skills for spiritually sensitive clinical and/or healthcare practices. Students have the opportunity to reflect upon their personal beliefs and values and integrate these experiences into their professional practice in ways that are responsible, sensitive and competent. Models of spiritually sensitive practice are developed and critiqued.

**SWRK 5705 - Practice in Global Issues (3)**

This course is designed to provide students with a working foundation for social work and public health practice in a global context. It is intended for students preparing to go on their international practicum or internship or those who are interested in working in a country other than their own. While this course is not intended to be a prerequisite for SWRK 703, it is highly encouraged. Course offered in the spring.

**SWRK 5707 - Policy Practice for Social Justice (3)**

In this course, students will gain leadership skills to effectively advocate for social policy and economic justice. Course content will prepare students to

**SWRK 5729 - Social Work in Corrections (3)**

This course presents the issues and trends within adult and juvenile corrections. This course will assess adult and juvenile correctional systems, including jails and prisons, probation, parole, and alternatives to incarceration. Treatment of substance abuse, health problems, and mental illness are examined within the context of correctional settings and offender populations.

**SWRK 5731 - Fall Inter-Professional Team Seminar (0)**

This course is designed to provide students with a learning experience focused upon client system centered care as members of an interprofessional team. The purpose of the team will be to provide education, consultation, and/or direct care for medically underserved individuals/families using an interprofessional plan of care. The interprofessional team will identify a pertinent health-related issue with their chosen population. They will cooperate, collaborate, communicate, and integrate in order to provide a holistic approach to care. Each professional will use his or her knowledge and expertise to maximize the productivity of the interprofessional team to improve health outcomes. Seminars will provide opportunities for students to discuss and reflect on how service activities express the professional obligation to work as change agents for a more just society. Registration and attendance in one Fall section of Saint Louis University's Inter-Professional Team Seminar is required for all MSW students in the Clinical concentration.

**SWRK 5732 - Spring Inter-Professional Team Seminar (0)**

This course is designed to provide students with a learning experience focused upon client system centered care as members of an interprofessional team. The purpose of the team will be to provide education, consultation, and/or direct care for medically underserved individuals/families using an interprofessional plan of care. The interprofessional team will identify a pertinent health-related issue with their chosen population. They will cooperate, collaborate, communicate, and integrate in order to provide a holistic approach to care. Each professional will use his or her knowledge and expertise to maximize the productivity of the interprofessional team to improve health outcomes. Seminars will provide opportunities for students to discuss and reflect on how service activities express the professional obligation to work as change agents for a more just society. Registration and attendance in

**SWRK 5748 - Behavior Change & Processes in Applied Behavior Analysis (3)**

This course expands students' basic knowledge with respect to behavior

**SWRK 5768 - Health & Mental Health Policy (3)**

Health care system of the United States from medical, sociological, political and economic perspectives; policy issues and alternatives.

**SWRK 5769 - Marital & Couples Counseling (3)**

This is an introductory theory and skill development in course in marital and couples counseling. The focus is on developmental and on-going marital and couples relationship challenges.

**SWRK 5771 - Intimate Partner Violence (3)**

The focus of the course is on ways to reduce the incidence and impact of intimate partner violence. Students address and examine the theoretical understandings for violence against women and other intimate partner violence as well as the need for direct services, community organizing, and public policy changes that will help end intimate partner violence.

**SWRK 5772 - Cognitive Behavior Therapy for Social Work Practice (3)**

Students in this course will learn basic knowledge and skills of cognitive-behavior therapy as they relate to stage-appropriate assessment and treatment of persons with co-occurring mental illness and substance use issues. These skills will include developing a therapeutic alliance, problem formulation, assessment of maladaptive thoughts and schemas, cognitive restructuring, exposure therapy, development of various coping skills and relapse prevention. Students will learn how to integrate other treatment approaches such as harm reduction, motivational interviewing, and mindfulness with cognitive-behavioral approaches in order to assist people to achieve and maintain therapeutic goals. Prerequisites: SWRK 5725, 5702, 5750, and 5751. Pre/Co-Requisite: SWRK 5821 or SWRK 5831 or SWRK 5841.

**SWRK 5773 - Approaches to Trauma Care (3)**

This is an introduction to the study of trauma ranging from violence, natural disasters, child abuse and other forms of traumatic experience and its impact on client populations served in the field of social work. The implications of trauma are explored through various theoretical frameworks and assessment practices that address the biological, psychological, sociological and spiritual effects on individuals, families and communities. Theories and models of crisis intervention are presented, as well as their application in clinical practice with survivors of violent events and natural disasters. Students also examine and develop skills necessary to utilize evidence-based treatments with specific populations.

**SWRK 5774 - Measurement & Experimental Design in Applied Behavior Analysis (3)**

This course develops students basic knowledge related to single subject research design, measurement and application of the empirical approach to evaluation of effectiveness of interventions in the field of applied behavior analysis. Students review some of the basic assumptions and characteristics that define the field. The material covered prepares students for work in the field of behavior analysis/related field and for board certification in Applied Behavior Analysis. Course content supports the social work value of social justice to provide professional services to persons with disabilities.

**SWRK 5775 - Advanced Social Work Practice in Trauma with Children & Youth (3)**

This course will introduce students to the common concepts (general theory and foundational knowledge), which informs evidence-based assessment and intervention with traumatized children and adolescents. Strength-based practice will be highlighted along with a focus on the identification of protective and promotive factors that foster resiliency and post-traumatic growth. Trauma is broadly defined and includes children and adolescents exposed to traumatic events including, but not limited to natural disasters, war, abuse and neglect, medical trauma, and witnessing interpersonal crime (e.g. domestic violence) and other traumatic events. The course will highlight the role of development, culture and empirical evidence in trauma-specific interventions with children, adolescents and their families. It will address the level of functioning of primary care giving environments and assess the capacity of the community to facilitate restorative processes.

**SWRK 5776 - Advanced Social Work Practice in Trauma with Adults (3)**

This course will introduce students to the common concepts (general theory and foundational knowledge), which informs evidence-based assessment and intervention with traumatized adults. Strength-based practice will be highlighted along with a focus on the identification of protective and promotive factors that foster resiliency and post-traumatic growth. Trauma is broadly

**SWRK 5787 - Research Methods I (3)**







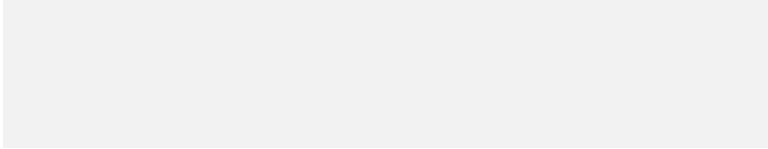
**UPD 5370 - Sustainable Site Planning (3)**



**Education (ED)**

**ED 1200 - Human Growth & Development (3-4)**

Study of maturation in childhood, adolescence, and early adulthood designed for those entering the teaching profession. Emphasis is placed on biological, health, social, cognitive, and affective development. (Taken by all Renaissance candidates.)



**ED 3803 - Candidate Experiences: Classroom Teaching in Special Education (8)**

Full day, full-time teaching experience. Candidates are expected to demonstrate the knowledge and skills acquired in the core, methods, and specialization courses. Candidates placed with or under the supervision of a certified master teacher. Prerequisite(s): successful completion of ED-3003 and appropriate methods courses.

**ED 4100 - Principles of Education: Inclusion, Diversity, Behavior Management, and Technology (3-4)**

Integrative course designed to investigate educational strategies that promote inclusion for all learners; to evaluate, compare and contrast school and related



**EDF 2010 - Foundations of Early Childhood Education (3)**

A systematic analysis of how social issues impact schools forcing continual change and reform. Each part of educational system will be analyzed including organization philosophy, environment, management, and assessment. Field experiences are required and structured to focus on early childhood education (pre-K & K).

**EDF 6050 - Multicult. Issues/Pub Service (3)**





**EDI 3050 - Bridging Realities: An Interdisciplinary Immersion in Belize (1)**

Weekly seminar and 10 day faculty/staff led trip will immerse you in the cultural, linguistic, and pedagogical practices in Belize City. Students will engage the material through ethical, academic and spiritual frameworks that synthesize past information and experiences with the new paradigms encountered through the course. Application Required.

**EDI 3060 - Methods in Teaching Elementary Science (2)**

This course focuses on an introduction to the methods used in teaching

**EDI 4000 - Literacy Assessment and Instruction for Diverse Learners (3)**

Examines characteristics and uses of formal and informal literacy assessment tools for children in grades 1 to 6; strategies for incorporating results into literacy instruction; state content and performance standards for literacy; and strategies for providing in-depth intervention, remediation, and acceleration. Students in this course will develop a diagnostic case study that links assessment, instruction, and reflective practices. Includes 1.5 hours of

**EDI 4840 - Obs & Student Teach Sec (10)**

Involves ten weeks of full time student teaching under the direction of an experienced teacher and a University supervisor. Student initially observes, then gradually assumes responsibility for all classroom activities. Every semester.

**EDI 4860 - Pro Dev EC,Elem,SpEd, ECSE (3)**

This course is designed to focus on issues related to student teaching and professional development. The seminar will include opportunities for problem solving and for developing a professional portfolio. Focus is also on meeting requirements as a beginning teacher. This course is to be taken concurrently with student teaching.

**EDI 6450 - Curriculum Development (3)**

Practice in using the processes of curriculum development through examination of existing programs., developing new segments of curriculum,

**EDL 6060 - Research Design and Analysis for Educational (3)**

Students will use the SPSS software program to explore quantitative research designs which are appropriate in educational leadership and higher education environments. This will include experimental, quasi-experimental and archival study designs. The students will use SPSS to build and analyze data bases. Student will learn how to use the SPSS program to perform preliminary analysis on data bases including using descriptive statistics, creating charts and graphs to describe data and checking scale reliability. Students will also learn how to select and conduct the appropriate statistical test to analyze data using the SPSS program. Specific tests to be covered include: correlation, multiple regression, t-tests for means, one-way analysis of variance ANOVA, two way between group ANOVA, analysis of covariance ANCOVA and the non-

**EDR 5100 - Intro to Inferential Stats: Ed (3)**

This course is a survey of basic statistical methods including descriptive statistics, z-tests and t-tests of means and proportions, chi-square analyses, correlation and regression analyses, and analysis of variance. The statistical package for the social sciences (SPSS) will also be used. (Offered every Fall semester)

**EDR 5200 - Test Construction Techniques (3)**

The Test Construction course is designed to assist educators in learning how to create useful and psychometrically sound examinations. It provides a research based overview of the different testing formats and the advantages and limitations of each format.

**EDR 5400 - Qual Research in Education (3)**

Students will learn the qualitative research paradigm, data collection and analysis techniques and report writing. Offered every fall and spring semester.

**EDR 5500 - Evaluation of Ed. Programs (3)**

Prerequisite: EDR540 or the equivalent. Course introduces students to program evaluation techniques and their application to schools. Builds on a basic understanding of research and evaluation processes to focus on alternative approaches to program evaluation and practical guidelines. Students will be required to conduct mini-evaluations; their involvement in these evaluations and the course reading will provide the background for seminar discussions. offered every fall semester.

**EDR 5600 - Gnrl Rsch Methods for Educ (3)**

This course provides a survey of the techniques, methods and tools of research in education. Included is general discussion of the research process followed by examination of several different study designs such as observational, experimental, descriptive and sample survey. The course also provides an overview of different methods of sampling, data collection and analysis frequently used in research literature. (Offered every Spring semester)

**EDR 5950 - Special Study for Exams (0)**

Special Study for Exams

**EDR 5980 - Graduate Reading Course (1-3)**

Prior permission of guiding professor required.

**EDR 5990 - Thesis Research (0-6)**

Research

**EDR 6000 - Professional Writing (3)**

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**EDSP 4510 - Counseling in Special Education (2)**

Prerequisite: Completion of Advanced Special Education Methods Course. Presents approaches to working with exceptional individuals and their parents in the school, home, and community. Exploration of theories and methods which enhance positive relations with students and parents. Investigation of transitional programs and vocational options for students with disabilities. Fall semester.

**EDSP 4530 - Currcul. Method & Matl ECSE (3)**

An investigation of designs for early childhood special education environments. Focus on intervention approaches including parental involvement. Survey of existing programs and an introduction to basic research in the field. Every third semester. Pre requisite EDSI-448.

**EDSP 4540 - Supervised Practicum in Early Childhood Special Education (3)**

Individual, small group and/or classroom teaching experience under the supervision of a master teacher and a University supervisor. Seminar included. Prerequisite EDI 3550.

**EDSP 4600 - Medical Implications in SpEd (3)**

Prerequisite: Completion of Advanced Special Education Methods Course. Course designed to provide theoretical and practical information about physical and health related problems related to the exceptional child. Emphasis on developmental, medical and genetic characteristics related to the field of special education. Every third semester.

**EDSP 4620 - Intro to Mild/Mod Dis Sec Meth (3)**

This course is an introduction to the educational and psychological characteristics (cognitive, emotional, and social) of secondary age individuals with mild-moderate disabilities and the implications that these characteristics have for practice. Problems of definitions, screening, diagnosis, classification systems, transition, futures planning, classroom management, and multicultural issues are addressed. Information useful for selecting and developing intervention programs for secondary age students with mild disabilities are addressed. Included is an overview of research in the field with emphasis on the study of instructional approaches emphasizing specific methods and materials.

**EDSP 4640 - Seminar in ECSE (3)**

A seminar to examine issues related to early childhood special education. Topics include theoretical perspectives, family issues, infant programming, environmental and personal strategies for self management, transdisciplinary practices, collaborative consultation and current trends. Prerequisite EDSI453.

**EDSP 4650 - Education of the Gifted (3)**

Study of the dimensions of gifted-identification, characteristics, development and societal role. Emphasis will be placed on the problems of curriculum, teaching, administration, and guidance. Literature in areas of creativity, critical thinking and motivation will be reviewed as it applies to the development of gifted children. As needed.

**EDSP 4700 - Career Dev for Excep Child (2)**

Exploration of the concepts, need and organization of career development for the exceptional individual. Investigation of service-delivery models. Fall semester.

**EDSP 4840 - Professional Development Seminar (Mid, Sec, EdSp) (2-3)**

This course is designed to focus on issues related to student teaching and



