

COURSE ROSTER

ACCOUNTING

- ACCT 3331: MANAGERIAL ACCOUNTING**
Prerequisite: Six semester hours of Principles of Accounting or equivalent. Analysis of cost systems and preparation of cost statements. Management use of cost statements for control and financial reporting. Cannot be taken for credit by accounting majors.
- ACCT 3333: COST ACCOUNTING**
Prerequisite: Six semester hours of Principles of Accounting or equivalent. Intensive examination of cost systems, cost behavior, approaches to cost statements, implications for managerial planning and financial reporting.
- ACCT 3431: INTERMEDIATE ACCOUNTING I**
Prerequisite: Six semester hours of Principles of Accounting or equivalent. Study of the concepts and procedures underlying the measurement and reporting of financial information.
- ACCT 3432: INTERMEDIATE ACCOUNTING II**
Prerequisite: ACCT 3431 or equivalent. Continuation of the study of concepts and procedures underlying the measurement and reporting of financial information.
- ACCT 3433: INTERMEDIATE ACCOUNTING III**
Prerequisite: ACCT 3432 or equivalent. Complex financial accounting topics including statements of cash flow, earnings per share, financial statements analysis, interim and segment reporting, partnerships, states and trust and international issues.
- ACCT 4331: FEDERAL TAXATION OF INDIVIDUALS**
Prerequisite: Six semester hours of Principles of Accounting or equivalent. An analysis of the federal income tax laws as they apply to individuals.
- ACCT 4332: FINANCIAL INFORMATION SYSTEMS**
Prerequisites: ACCT 3431 and ISAM 3033 or equivalent. Design and operation of contemporary accounting information systems, including control concepts and reporting responsibilities.
- ACCT 4431: AUDITING I**
Prerequisite: ACCT 3432 or equivalent, Prerequisite or corequisite: ACCT 4332 or equivalent. An introduction to auditing theory and standards, with emphasis on the attest function, professional ethics and responsibilities, audit risk concepts and audit planning.
- ACCT 4432: GOVERNMENT AND NOT-FOR-PROFIT ACCOUNTING**
Prerequisite: ACCT 3432 or equivalent. The course covers the government and not-for-profit environment, fund accounting, budgeting, revenue and expenditure recognition, and financial reporting requirements.
- ACCT 4433: UNDERSTANDING FINANCIAL STATEMENTS**
Prerequisite: ACCT 3432 or equivalent. Corequisite/Prerequisite: ACCT 4532 or equivalent. Selected advanced topics in financial accounting and introduction to financial statement analysis. Decision-making and analytical skills needed to interpret financial information will be emphasized.
- ACCT 4434: OIL AND GAS ACCOUNTING**
Prerequisite: ACCT 3431 or equivalent. Exploration and production activities of a petroleum company are examined from both a financial and tax accounting standpoint.
- ACCT 4435: SOFTWARE APPLICATIONS IN AUDITING**
Prerequisite: ISAM 3033 and ACCT 3431 or equivalents, Corequisite/Prerequisite: ACCT 4332 or equivalent. This course is designed to provide the student with a solid foundation in using various software tools to improve and enhance the audit of financial statements. Students will learn about and have practical experience with manipulating raw data to unlock the useful audit information contained in the raw data. The course will use the tools to perform data extraction, analysis, and sampling. The course will also briefly cover using the tools for fraud detection and prevention.
- ACCT 4436: BUSINESS ETHICS FOR ACCOUNTANTS**
Prerequisites: ACCT 3431 and ACCT 3432, or ACCT 5133 and ACCT 5134, or equivalents. The objective of this course is to provide the student with an educational background in what constitutes ethical conduct in business and accounting. It will provide a framework for making ethical decisions in a student's professional career in accounting. Requires reading and comprehending complex case problems and the use of critical thinking skills to determine a solution. Solutions must be presented in writing in a coherent and grammatically correct manner. Expertise in accounting is required as the cases involve some forensic work to determine what happened and what should have happened.
- ACCT 4532: ADVANCED FINANCIAL ACCOUNTING**
Prerequisite: ACCT 3432 or equivalent. Accounting for the acquisition and consolidation of domestic and foreign concerns, foreign currency translations and remeasurement; accounting for branches, governmental agencies and other not-for-profit entities.
- ACCT 4533: FEDERAL TAXATION OF CORPORATIONS**
Prerequisite: ACCT 4331 or equivalent. Examination of federal income tax laws as they apply to corporations and shareholders. Includes an examination of Subchapter S corporation.
- ACCT 4631: INTERNATIONAL ACCOUNTING**
Prerequisite: ACCT 3431 or equivalent. Examination of international accounting problems from the perspective of managerial accounting and financial reporting.
- ACCT 4739: INTERNSHIP IN ACCOUNTING**
Prerequisite: 15 hours of upper-level credit, approval of associate dean and faculty chair, and sponsoring faculty member. Supervised work experience each week in an approved accounting firm, governmental agency, or business. Written work as required by sponsoring faculty member.
- ACCT 4839: INDEPENDENT STUDIES IN ACCOUNTING**

Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required. Independent directed study in Accounting.

ACCT 4931 SELECTED TOPICS IN ACCOUNTING
Identified by specific title each time course is offered.

ANTHROPOLOGY

- ANTH 3131: CONTEMPORARY CULTURAL ANTHROPOLOGY**
The comparative study of culture as manifested in technology, language, personality and religion and in the social, economic and political organization of societies.
- ANTH 3532: POLITICAL AND ECONOMIC ANTHROPOLOGY**
Examines the methods and theories used by anthropologists to understand political and economic systems in traditional and developing societies.
- ANTH 3535: TOPICS IN ASIAN STUDIES**
Investigation of social and cultural diversity of Asian societies. Focuses on religion, economy, politics and social structure. Topics vary; may be repeated for credit with permission of instructor.
- ANTH 3537: PEOPLES OF AFRICA**
Investigation of ethnicity, social organization, politics and religion of Africa.
- ANTH 3538: TOPICS IN MIDDLE EASTERN SOCIETIES**
Investigation of the social and cultural diversity of Middle Eastern societies. Focuses on religion, economy, politics and social structure. Topics vary; may be repeated for credit with permission of instructor.
- ANTH 3631: FOOD AND CULTURE**
Explores relationship between food and culture from an anthropological perspective.
- ANTH 4031: STUDIES IN CULTURAL DIVERSITY**
Critical examination of cultural diversity as expressed in formations of ethnicity, race, class, nationalism and gender. Topic may vary; may be repeated for credit with permission of instructor.
- ANTH 4333: PEOPLES OF MEXICO AND CENTRAL AMERICA**
Surveys anthropological approaches to regions of Mexico, Central America and US–Mexico border. Particular attention paid to gender and women's issues, as well as race and class.
- ANTH 4334: INDIANS OF NORTH AMERICA**
A survey of native cultures of North America, from prehistory to the present.
- ANTH 4430: CULTURAL STUDY ABROAD**
Prerequisite: Permission of instructor. Course exposes students to culture, history, religion and politics of another country. Involves foreign travel, and includes prerequisite of semester long course focusing on study abroad country.
- ANTH 4431: WOMEN IN SOCIETY**
A cross-cultural study of the environment, biological and cultural factors in the division of labor; and assignment of roles, male and female. "Women's Studies Course". (Crosslisted with SOCI 4431).
- ANTH 4432: HUMAN RIGHTS AND SOCIAL JUSTICE**
Exploration of conceptions of human rights and of recent attempts to reconcile such conceptions in the context of globalization and from the perspective of social justice.
- ANTH 4531: ANTHROPOLOGY OF THE FAMILY**
Family dynamics are examined from a cross-cultural perspective using case study material.
- ANTH 4532: WORLD PREHISTORY AND ARCHAEOLOGY**
Examines the basic methods and theories used by archaeologists to explore human evolution and prehistory.
- ANTH 4533: ARCHAEOLOGICAL INVESTIGATION**
Methods for archaeological research design, survey, excavation and analysis. May be repeated for credit.
- ANTH 4534: ARCHAEOLOGY OF ANCIENT CIVILIZATIONS**
Exploration of the origins, organization and decline of ancient complex societies in the Old and New Worlds, from an anthropological perspective.
- ANTH 4633: HISTORICAL ARCHAEOLOGY**
Use of survey, excavation and analysis of material remains to amplify written records of Colonial and Early American societies.
- ANTH 4634: VISUAL ANTHROPOLOGY**
Study of anthropology through the visual media, specifically film and still photography.
- ANTH 4839: INDEPENDENT STUDY IN ANTHROPOLOGY**
Independent Study in Anthropology. Permission of instructor required.
- ANTH 4931: SELECTED TOPICS IN ANTHROPOLOGY**
Identified by specific title each time course is offered.

ARTS

*Pending Coordinating Board approval

- ARTS 3030: DRAWING FOR NON ART MAJORS**
Exploration of drawing media, composition and space relationships using recognizable forms.
- *ARTS 3031: PHOTOGRAPHY FOR NON-ART MAJORS**
Exploration of basic methods and processes of the photographic medium; designed for non-art majors. Topics include use of camera and techniques for taking better photographs.
- ARTS 3136: SCULPTURE**
A study of three-dimensional forms as related to techniques, processes, aesthetics and other materials.
- ARTS 3137: ADVERTISING DESIGN**

- Prerequisite: ARTS 4433 and ARTS 4439 or permission of instructor. Professional approaches to advertising design, theory and practice. Advertising design projects requiring photographic and computer skills. Previous -art, design, computer and writing skills desirable.
- ARTS 3231: CERAMICS**
Study of ceramic design as related to tools, materials and processes; hand building and potter's wheel.
- *ARTS 3330 COLOR**
Understanding of color properties and relationships through studio practices. Topics include color systems, fundamental vocabulary for analyzing and identifying color, color phenomena, color theorists and use of color by various artists and designers.
- ARTS 3331: INTERMEDIATE DRAWING I**
Principles of space relationship and composition using recognizable forms through color pastel drawings.
- ARTS 3335: INTERMEDIATE PAINTING I**
Principles of space relationship and composition using recognizable forms through oil, acrylic or watercolor painting.
- ARTS 3431: INTERMEDIATE PRINTMAKING**
Exploration of printmaking techniques in intaglio, chine-colle etching, woodcuts/linocuts and monotypes.
- ARTS 3631: FIBERS**
History, design and techniques of woven and non-woven fiber forms. May be repeated for credit.
- ARTS 3831: WESTERN ART: PREHISTORY THROUGH THE MIDDLE AGES**
Language, form and meaning of visual culture in ancient Mesopotamia and Egypt, Graeco-Roman antiquity and medieval Europe within constructions of society, culture, religion, politics.
- ARTS 3832: WESTERN ART: RENAISSANCE TO CONTEMPORARY**
Patterns of innovation, change and continuity in Western art theory and practice from Renaissance and Baroque to rise of Trans-Atlantic modernism and contemporary global pluralism.
- *ARTS 4030: METHODS IN ELEMENTARY ART EDUCATION**
Examines trends in theory and practice for EC-5. Curriculum, instructional techniques and classroom management are addressed. Practicum experiences required.
- *ARTS 4031: METHODS IN SECONDARY ART EDUCATION**
Explores research, theory and practice for grades 6-12. Curriculum development, instructional techniques and classroom management methods are applied. Field experience required.
- ARTS 4038: CRAFTS DESIGN AND HISTORY**
Study of crafts history, design and techniques; projects in paper, fibers, clay and other media. May be repeated for credit.
- ARTS 4039: FIBERS STUDIO**
Supervised projects in woven and non-woven techniques with emphasis on color and design. May be repeated for credit.
- ARTS 4131: PHOTOGRAPHY I**
Designed for studio majors and serious professionals. Exploration of basic methods and processes of the photographic medium. Examines foundations of photography for communication and documentation.
- ARTS 4132: ADVANCED PHOTOGRAPHY**
Prerequisite: ARTS 4131 or equivalent. Further exploration of photography as artistic medium. Emphasis will be on concept, furthering craft and introduction of color photography. May be repeated for credit.
- ARTS 4133: DIGITAL PHOTOGRAPHY**
Prerequisite: ARTS 4439 or permission of instructor. Exploration of photography and photographic processes in the digital realm. Concepts of documentation, communication and fine art will be addressed. Access to manual 35 mm camera helpful. May be repeated for credit.
- ARTS 4136: PROCESS SCULPTURE**
Prerequisite: ARTS 3136 or permission of instructor. Study of three-dimensional forms through wood and metal fabrication, and bronze casting. May be repeated for credit with permission of instructor.
- ARTS 4233: ADVANCED CERAMICS**
Prerequisite: ARTS 3231 or permission of instructor. Ceramics workshop with emphasis on individual projects. May be repeated for credit.
- ARTS 4234: RAKU**
An ancient Japanese firing technique radically different from the traditional approach. Materials, tools and techniques unique to this process will be discussed and practiced. This course may be repeated for credit.
- ARTS 4331: ADVANCED DRAWING**
Prerequisite: ARTS 3331 or equivalent. Principles of space relationship and composition through color pastel drawings, collage drawings and mixed media works on paper. May be repeated for credit with permission of the instructor.
- *ARTS 4332: LIFE DRAWING**
Prerequisite: ARTS 3331 Introduction to techniques of proportion and accuracy in drawing the human form. Students work from live model in pencil, pastel and charcoal in both detailed and gesture drawings Topics vary; may be repeated for credit.
- ARTS 4335: ADVANCED PAINTING**
Prerequisite: ARTS 3335 or equivalent. Principles of space relationship and composition through oil, acrylic, watercolor, collage and mixed media painting. May be repeated for credit.
- ARTS 4431: ADVANCED PRINTMAKING**
Prerequisite: ARTS 3431 or equivalent. Exploration of printmaking techniques of intaglio, chine-colle, etching, woodcuts/linocuts and monotypes. May be repeated for credit.
- ARTS 4433: GRAPHIC DESIGN**
Professional approaches to graphic design. Presentations on design theory and practice. Professional design projects utilizing vector graphics on the computer. Previous art design and/or computer skills desirable. May be repeated for credit.
- ARTS 4434: WEB DESIGN**
Prerequisite: ARTS 4439 or permission of instructor. Creating and publishing Web pages using HTML. Study of formal

- design elements, theories, audience analysis and usability as students apply the Web to serve as a communication tool.
- ARTS 4435: ADVANCED WEB DESIGN**
Prerequisite: ARTS 4434 or permission of instructor. Study of advanced techniques in Web page construction, including Web animation, dynamic HTML and site management. Also covers audience and usability testing.
- ARTS 4437: ILLUSTRATION**
Prerequisites: ARTS 4433 and ARTS 4439, or permission of instructor. Advanced computer projects utilizing various techniques in visual messaging including professional practices in traditional design, computer skills and typography. Previous art, design, computer and writing skills desirable.
- ARTS 4438: COMPUTER GRAPHICS**
Introduction to fundamentals of computer-based graphic design. No programming or prior computer experience required.
- ARTS 4439: COMPUTER IMAGING**
Projects in processing photographic imagery in computerized environment using Adobe Photoshop. Previous art, design and/or computer skills desirable. Access to a digital camera helpful. Art students may repeat for credit.
- ARTS 4530: 3D COMPUTER MODELING**
Prerequisites: ARTS 4433 or permission of instructor. 3D modeling techniques for animation, images and 3D computer sculptures. How to build 3D models. Modeling techniques used in 3D software applications. Texture mapping and lighting in a 3D environment.
- ARTS 4532: DIGITAL VIDEO**
Examination of basic elements of video production, utilizing non-linear editing equipment. Emphasis on technique, concept and artistic exploration. May be repeated for credit.
- ARTS 4533: 3D ANIMATION**
Prerequisite: ARTS 4530. Fundamental principles of animation. Introduces students to 3D computer animation techniques including key framing, path animation, non-linear animation and hierarchical animation. Covers storyboarding and animation project planning.
- *ARTS 4537: HISTORY AND THEORY OF PHOTOGRAPHY**
Study of history and function of photography from its development in the fine arts to present-day signification of mechanical and digital reproduction.
- *ARTS 4538: HISTORY OF GRAPHIC DESIGN**
History of graphic design from inception of written communication to postmodern design and digital revolution.
- ARTS 4539: GENDER AND IDENTITY IN THE VISUALS ARTS**
History, theory and criticism in relation to issues of gender, sexuality and identity in the visual arts. Traces artistic contribution of women. Explores the "waves" of feminist movement and/or identity/gender constitution. "Women's Studies Course." Topics vary; may be repeated for credit with permission of instructor.
- ARTS 4631: RENAISSANCE ART**
Italian and Northern Renaissance art through lens of Renaissance humanism, patronage and society. Major artists such as Donatello, Masaccio, Botticelli, Leonardo, Raphael, Michelangelo, Titian, Jan van Eyck, Durer.
- ARTS 4634: STUDIES IN WESTERN EUROPEAN ART**
Major post-Renaissance movements from 1600 to 1850: Art of the Baroque and Rococo periods, Neoclassicism, Romanticism. Topics vary; may be repeated for credit with permission of instructor.
- ARTS 4635: IMPRESSIONISM**
Spectacle of modern life and artistic avant-gardism in Second Empire Paris, its suburbs and resort areas by artists such as Manet, Monet, Renoir, Degas, Cassatt; the American idiom by Chase, Hassam and others.
- ARTS 4637: MODERN ART**
Modernity, modernism, fantasy, enigma in early 20th-century European and American art and architecture by such masters as Picasso, Matisse, Kandinsky, Mondrian, Duchamp, Dali, Magritte, Kahlo, Brancusi, Frank Lloyd Wright, Le Corbusier, O'Keeffe.
- ARTS 4638: CONTEMPORARY ART**
Art theory and criticism – postmodernist discourses. Understanding and interpreting are since 1950. Follows the Movements and relevant key figures in Abstract Expressionism, Pop Art, Situationists, Dada, Fluxus, Minimalism, Conceptualism, Performance Art, etc.
- ARTS 4639: STUDIES IN NON-WESTERN ART**
Studies in the art, aesthetics and cultural politics of India, China, Japan, Africa and the Americas. Topics vary; may be repeated for credit with permission of instructor.
- ARTS 4631: RENAISSANCE ART**
Italian and Northern Renaissance art through lens of Renaissance humanism, patronage and society. Major artists such as Donatello, Masaccio, Botticelli, Leonardo, Raphael, Michelangelo, Titian, Jan van Eyck, Durer.
- *ARTS 4730: TOPICS IN CONTEMPORARY ART**
Concentrated study in single topic pertaining to contemporary art (post-WW2 period). Topics vary – including media (for example, sculpture), themes (such as multicultural issues) and movements (such as Performance Art). May be repeated for credit with permission of instructor.
- ARTS 4735: SENIOR SEMINAR IN ART**
Required capstone course for Arts majors. Prepares students for graduate and professional engagement from several perspectives: portfolio and slide presentations; successful resume and grant writing; interviewing prospective exhibition venues; learning logistics of exhibiting artworks, including transportation, installation and publicity.
- ARTS 4739: ARTS INTERNSHIP**
Prerequisite: Permission of instructor. Supervised on-site internship in art or design capacity.
- ARTS 4819, 4839: INDEPENDENT STUDY IN ART**
Independent study in art. Approval of instructor required. May be taken for 1 or 3 hours of credit.
- ARTS 4931: SELECTED TOPICS IN ART**

Identified by specific title each time course is offered

ASTRONOMY AND SPACE SCIENCE (See also PHYSICS)

- ASTR 3031: LIFE IN THE UNIVERSE FOR NON-SCIENCE MAJORS**
Non-Scientists' version of the highly popular Astrobiology and Origins courses taken by scientists. Non-technical account of origin of the universe, origin and evolution of life and possibilities for finding life on other planets, including the Search for Extra-Terrestrial Intelligence. Ideal fun elective for all non-scientists, but cannot be counted as physical science elective for purposes of teacher certification.
- ASTR 3131: MODERN ASTRONOMY**
Introduction to the history and development of astronomy; telescope optics; laws of planetary motion; planetary structures, atmospheres and surfaces; the sun; elements of astrophysics; stellar structure and evolution; galactic structure and evolution; cosmology. Some telescope observation sessions as "seeing" permits. Not available for graduate credit in Physics.
- ASTR 4131: UNIVERSAL ORIGINS**
Pre-requisites: General Chemistry, and University or College Physics. Origin of the universe, the Earth and life.
- ASTR 4132: ASTROBIOPHYSICS**
Pre-requisites: General Chemistry, and University or College Physics. Overview of the search for life in the universe, including origin and evolution of habitable planets in the solar system and beyond.
- ASTR 4931: SELECTED TOPICS IN SPACE SCIENCE**
Identified by specific title each time course is offered.

BIOLOGY

*Pending Coordinating Board approval

- *BIOL 3011: LABORATORY FOR COMPARATIVE ANIMAL MORPHOLOGY**
Corequisite: BIOL 3031. Laboratory course comparing the anatomical structure of animals from various phyla. Involves dissection of laboratory specimen.
- BIOL 3031: COMPARATIVE ANIMAL MORPHOLOGY**
Investigations of structural similarities and differences of major invertebrate and vertebrate phyla. Lecture and laboratory instruction.
- BIOL 3033: THE ENVIRONMENT**
An introduction to ecosystems, populations and human impacts on the environment. Not for biology or environmental science majors.
- BIOL 3036: DEVELOPMENT OF THE SCIENCES**
Concepts, techniques, practices and philosophy of science, Illustrated with historical and contemporary examples. Biology majors may use only as an unrestricted elective.
- BIOL 3037: CELL BIOLOGY**
Prerequisites: General biology, general chemistry. An introduction to fundamental principles of cell structure and function.
- BIOL 3113: LABORATORY FOR PLANT ANATOMY**
Corequisite: BIOL 3133. Two laboratory hours each week.
- BIOL 3131: MARINE BIOLOGY**
Prerequisite: General biology. Study of marine organisms and their environment. One or more weekend or weekday field trips and limited laboratory exercises are required.
- BIOL 3133: PLANT ANATOMY**
Prerequisite: General biology. Corequisite: BIOL 3113. Structures, tissues and cells of vegetative and reproductive organs of land plants related to concepts of growth, differentiation and organization function and evolutionary history.
- BIOL 3134: PLANT PHYSIOLOGY**
Prerequisites: General biology, general chemistry. Physiological processes of plants.
- BIOL 3221: LABORATORY FOR FUNDAMENTALS OF MICROBIOLOGY**
Corequisite: BIOL 3231. Six laboratory hours per week.
- BIOL 3231: FUNDAMENTALS OF MICROBIOLOGY**
Corequisite: BIOL 3221. A comprehensive study of microbial organisms including their isolation, culture, identification and importance to man.
- BIOL 3333: ENVIRONMENTAL BIOLOGY**
The impacts of pollution, anthropogenic activities and other stresses on ecosystem structure and function. Course designed for science majors.
- BIOL 3334: ENVIRONMENTAL AND PUBLIC HEALTH MICROBIOLOGY**
Prerequisite: General biology. Identification and control of microorganisms important in protecting public health.
- BIOL 3335: EPIDEMIOLOGY**
A study of the causes and clinical methods of controlling disease in large populations.
- BIOL 3336: NEUROPSYCHOLOGY PRACTICUM**
Prerequisite: Permission of instructor. Laboratory investigation of brain/ behavior relationships in the rat. Readings from primary research literature, lab experiments and research reports.
- BIOL 3411: GENETICS LABORATORY**
Corequisite: BIOL 3431. Laboratory investigations demonstrating principles of transmission, molecular and population genetics.

- BIOL 3431: GENETICS**
Prerequisites: General biology, general chemistry. The principles of genetics, include transmission genetics, molecular genetics and evolution of populations.
- BIOL 3713: HUMAN ANATOMY LABORATORY**
Corequisite: BIOL 3733. The structure of the human body will be studied using anatomical models, preserved tissue specimens and computer programs.
- BIOL 3733: HUMAN ANATOMY**
Corequisite: BIOL 3713. Fundamentals of human anatomy emphasizing an organ systems approach to the study of the human body. Lecture and demonstration.
- BIOL 4011: LABORATORY METHODS IN LIFE SCIENCES**
Corequisite: BIOL 4031. Three laboratory hours per week.
- BIOL 4031: METHODS IN LIFE SCIENCE**
Prerequisite: General biology; corequisite: BIOL 4011. Recent developments in plant and animal physiology, ecology and environmental science; emphasis on teaching biology from a contemporary standpoint.
- BIOL 4032: SURVEY OF DISEASE**
Prerequisites: General biology and general chemistry. Detailed study of diseases affecting humans.
- BIOL 4035: ECOLOGY OF THE AMAZON**
Study of the physical, chemical and ecological aspects of the Amazon flooded forest. Students completing course qualify for discounted optional ecology study trip to the Amazon flooded forest areas of Brazil.
- BIOL 4113: LABORATORY FOR BIOLOGY OF FISHES**
Corequisite: BIOL 4133. Laboratory course on identification, anatomy, morphology and ecology of fish. Weekend or weekday field trips and collections required.
- BIOL 4121: LABORATORY FOR ECOLOGY**
Prerequisite or corequisite: BIOL 4131. Four laboratory hours per week. Conduct experiments on population growth, competition and predation to test theoretical models; construct life tables.
- BIOL 4131: ECOLOGY**
Prerequisite: General biology. Theoretical study of organisms, populations and communities related to their environments.
- BIOL 4133: BIOLOGY OF FISHES**
Prerequisite: General Biology, Co-requisite: BIOL 4113. Systematic study of freshwater and marine fishes, including evolution, ecology, life history and economics of important species.
- BIOL 4135: BIOLOGY PRACTICUM**
Practical experience at an off-campus facility, such as aquarium, rainforest park, wetlands center or Galveston Bay Agency. Requires pre-acceptance interview, minimum of 10 hours of work per week and approval of instructor.
- BIOL 4225: ENVIRONMENTAL TOXICOLOGY LABORATORY**
Prerequisite: BIOL 4235 or equivalent. Theory and practice in aquatic toxicity testing using EPA standard methods.
- BIOL 4233: FIELD BIOLOGY**
Field methods for the study of ecological systems. Fieldwork and laboratory are required.
- BIOL 4235: ENVIRONMENTAL TOXICOLOGY**
Prerequisites: Twelve hours in biology and chemistry. Physiological and systemic interactions of environmental pollutants with plants and animals.
- BIOL 4237: PLANT IDENTIFICATION**
Taxonomic study of herbaceous and woody plants of SE Texas.
- BIOL 4332: HISTOLOGY**
Prerequisite: BIOL 3037 or BIOL 4437. A microscopic study of animal tissues including the theories of fixation and staining of clinical samples.
- BIOL 4421: LABORATORY FOR PHYSIOLOGY**
Prerequisite: BIOL 4434 or 4435. Laboratory exercises demonstrating physiological processes.
- BIOL 4422: LABORATORY FOR BIOCHEMISTRY**
Prerequisite or corequisite: BIOL 4431. One hour of lecture and three hours of laboratory per week.
- BIOL 4431: BIOCHEMISTRY I**
Prerequisite: Organic chemistry. Study of cellular biochemical components and metabolism.
- BIOL 4432: BIOCHEMISTRY II**
Prerequisite: BIOL4431 or equivalent. Regulation and control of intermediary metabolism. Introduction to biochemical genetics.
- BIOL 4434: COMPARATIVE ANIMAL PHYSIOLOGY**
Prerequisites: General biology, general chemistry. Study of organ functions in major invertebrate and vertebrate phyla.
- BIOL 4435: HUMAN PHYSIOLOGY**
Prerequisites: General biology, general chemistry. This course will introduce basic and advanced principles of human physiology. The study of physiology will be presented using an integrated systems approach. Lectures on topics ranging from physiology of the nervous system to human reproduction will be presented.
- BIOL 4436: PATHOPHYSIOLOGY**
Prerequisite: BIOL 4435 or equivalent. This course will study the abnormal physiology characteristic of diseases in humans. A physiological systems approach will be taken.
- BIOL 4437: CELLULAR PHYSIOLOGY**
Prerequisite: Biochemistry. Cell structure and function; emphasis on cytological, biochemical, genetical and developmental perspectives.

- BIOL 4438: DEVELOPMENTAL BIOLOGY**
Prerequisites: BIOL 3431 and BIOL 4437 or BIOL 3037. Embryology, tissue differentiation, cell determination and pattern formation at both descriptive and molecular level. Emphasis on animal systems with additional examples from plants and protists.
- BIOL 4522: MOLECULAR BIOLOGY LABORATORY**
Prerequisite or corequisite: BIOL 4531. Laboratory methods and techniques in molecular biology. Four laboratory hours per week.
- BIOL 4523: LABORATORY FOR BIOTECHNOLOGY**
Prerequisites: BIOL 4422, BIOL 4432. Current methods used in biotechnological industry and research as applied to medical, biological, agricultural and environmental aspects. Students will learn modern techniques used in genetic engineering, DNA sequencing, gene cloning, etc.
- *BIOL 4524: LABORATORY FOR EUKARYOTIC GENE EXPRESSION**
Prerequisite: BIOL 4531. Laboratory course designed to provide practical training in current gene expression studies including the isolation, quantification and handling of RNA, cDNA synthesis, RT-PCR and quantitative PCR. Microarrays and RNAi techniques will be discussed.
- BIOL 4531: MOLECULAR BIOLOGY**
Prerequisite: Genetics or Biochemistry or equivalent. General principles of molecular biology with an emphasis on gene functions in eukaryotic systems, disease at the genetic level and evolution of the gene.
- BIOL 4534: INTRODUCTION TO BIOINFORMATICS**
Introduction to bioinformatics, experimental sources of biological data, databases and servers operating systems (including Windows and Unix) and internet tools.
- BIOL 4535: TISSUE CULTURE**
Prerequisite: BIOL 4422 or equivalent. Students will learn how to manipulate cells in culture and develop laboratory skills in DNA transfection, gene expression, Luciferase assays and western blots.
- BIOL 4631: IMMUNOLOGY**
Prerequisites: BIOL 3431, BIOL 4431. Basic theory of humoral and cellular immune mechanisms.
- BIOL 4728: SEMINAR IN BIOLOGY**
Study of objectives, methods and culture of biological science. Literature surveys, presentations and research papers are required.
- BIOL 4731: CANCER BIOLOGY**
Prerequisite: BIOL 3431 or BIOL 4531 or equivalent. Cancer, genetics and heredity: prevention, detection and treatment of cancer.
- BIOL 4732 BIOLOGY OF AIDS**
The biological aspects of AIDS, including cellular and molecular descriptions of immune systems and the AIDS virus, HIV.
- BIOL 4819, 4829, 4839: INDEPENDENT STUDY IN BIOLOGY**
Prerequisite: Approval of instructor, chair and associate dean.
- BIOL 4931: SELECTED TOPICS IN THE BIOLOGICAL SCIENCES**
Identified by specific title each time course is offered.

BUSINESS AND PUBLIC ADMINISTRATION

- BAPA 3231: LOGICAL ANALYSIS**
Development of critical thinking skills based on an investigation of traditional approaches to correct and incorrect reasoning.
- BAPA 4636: ENTREPRENEURSHIP AND SMALL BUSINESS CONSULTING**
Prerequisites: ACCT 3331, FINC 3331, MGMT 3031 and MKTG 3031 or equivalents. Application of classroom concepts, theories and principles from all business disciplines to active operating small businesses or new business ventures. This course will qualify as a management or marketing elective.
- BAPA 4915; 4935 COOP EDUCATION IN BUSINESS**
Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of the Director of Cooperative Education. Educational paid work assignment by a student in the field of his or her career interest and course of study. A technical report will be required at the end of the semester. Qualifies as a general or BUS elective.

CHEMISTRY

*Pending Coordinating Board approval

- CHEM 3030: CHEMISTRY FOR NON-SCIENCE MAJORS**
This course is for students who wish to gain a descriptive understanding of Chemistry applicable to everyday living. Not for BIOL, CHEM, ENSC or Physical Sciences majors.
- *CHEM 3031: LIFE IN THE UNIVERSE FOR NON-SCIENCE MAJORS**
Origin of the Universe, origin and evolution of life and the possibilities for finding life on other planets, including the search for extra-terrestrial intelligence.
- CHEM 3032: FOOD AND NUTRITION SCIENCES FOR NON-SCIENCE MAJORS**
Understanding the nature of food and functions of food constituents, food safety and how nutrients affect health.
- CHEM 3224: LABORATORY FOR ORGANIC CHEMISTRY**
Prerequisite or corequisite: CHEM 3234. Laboratory principles and practices in organic chemistry. Three hours laboratory and one half hour lecture each week.
- CHEM 3230: SURVEY OF PHYSICAL CHEMISTRY**
Prerequisites: General Chemistry I, II, Calculus I, College Physics I, II. Appropriate for students pursuing the BA in Chemistry or a BS in Environmental Science. An overview of physical chemistry, thermodynamics, molecular structure, spectroscopy.

- CHEM 3233; 3234: ORGANIC CHEMISTRY I, II**
Prerequisite: General chemistry. Not available for credit to students with more than three hours of organic chemistry. Principles of organic chemistry based on a mechanistic approach to understanding the relationship of structure to reactivity in organic compounds.
- CHEM 3333: ENVIRONMENTAL CHEMISTRY**
Prerequisite: General chemistry. Chemical processes and reactions related to chemical pollution problems and their control in the atmosphere, soils and waters.
- CHEM 4222: LABORATORY FOR PHYSICAL CHEMISTRY**
Prerequisite or corequisite: CHEM 4231. Laboratory principles and practice in physical chemistry. Six laboratory hours each week.
- *CHEM 4130: MATHEMATICS FOR PHYSICAL CHEMISTRY AND BIOCHEMISTRY**
Prepares chemistry and biology students for math they will encounter in Physical Chemistry and Biochemistry, using examples geared to these subjects.
- CHEM 4131: CHEMICAL ORIGINS**
Prerequisites: General Chemistry and University or College Physics. Origin of the universe and the chemical elements, pre-biotic chemistry and the origin of life.
- CHEM 4132: ASTROBIOCHEMISTRY**
Prerequisites: General Chemistry and University or College Physics. Overview of the search for life in the universe, including chemical signatures of life on other planets.
- CHEM 4231, 4232: PHYSICAL CHEMISTRY I, II**
Prerequisites: General Chemistry I, II, Calculus I, II and calculus-based Physics I, II and CHEM 4130. CHEM 4231 and CHEM 4232 may be taken in any order: Physical Chemistry (PC) I is not a prerequisite for Physical Chemistry II. PCI covers thermodynamics and kinetics. PCII covers quantum mechanics and spectroscopy.
- CHEM 4325: ADVANCED LAB FOR INORGANIC CHEMISTRY**
Prerequisite: CHEM 3224, CHEM 4231 or CHEM 3230. Laboratory principles and basic manipulation skills used during the preparation and characterization of inorganic compounds.
- CHEM 4335: INORGANIC CHEMISTRY**
Prerequisite or corequisite: CHEM 3230 or CHEM 4231. Concepts and systems of inorganic chemistry; atomic structure, molecular structure and bonding, ionic crystals, solid state defects and coordination compounds.
- CHEM 4422: LABORATORY FOR BIOCHEMISTRY**
Prerequisite or corequisite: CHEM 4431. Laboratory principles and practices in cellular biochemistry. One hour of lecture and 3 hours of laboratory per week.
- CHEM 4431: BIOCHEMISTRY I**
Prerequisite: Organic chemistry, CHEM 4130 strongly recommended. Study of cellular biochemical components and metabolism.
- CHEM 4432: BIOCHEMISTRY II**
Prerequisite: CHEM 4431. Regulation and control of intermediary metabolism. Introduction to biochemical genetics.
- CHEM 4521: LABORATORY FOR ENVIRONMENTAL ANALYSIS**
Prerequisite or corequisite: CHEM 3333. Experimental methods for sampling and analysis of environmental samples using modern instruments. Hands-on laboratory and field experiments. One hour of lecture and 3 hours of laboratory per week.
- CHEM 4532: WATER CHEMISTRY AND WATER POLLUTION**
Prerequisites: General chemistry, Organic Chemistry I. Study of chemical equilibria in natural waters, water quality parameters, water sampling, important water pollutants and their fate.
- CHEM 4535: ENVIRONMENTAL SAMPLING AND MONITORING**
Prerequisite: MATH 3038. Principles and techniques of environmental sampling for air, water, soil and hazardous wastes. EPA standard methods for environmental analysis using biological, chemical and instrumental techniques.
- CHEM 4536: SOIL & GROUNDWATER REMEDIATION**
Prerequisite: CHEM 3333. Chemical, biological, geological principles and applications of various remediation techniques commonly used to clean up contaminated soils and groundwater.
- CHEM 4622: LABORATORY FOR ANALYTICAL CHEMISTRY**
Prerequisites or corequisites: CHEM 4635; 4636. Gravimetric, volumetric and simple instrumental methods of analysis. Six laboratory hours each week.
- CHEM 4635: ANALYTICAL CHEMISTRY I**
Prerequisite: CHEM 3234. Emphasizes quantitative analysis using titrations, gravimetric techniques and elementary instruments.
- CHEM 4636: ANALYTICAL CHEMISTRY II**
Prerequisite: Analytical Chemistry I. Emphasis on qualitative organic analysis and an introduction to instrumental analysis.
- CHEM 4637: INSTRUMENTAL ANALYSIS**
Prerequisite: CHEM 4635. Principles and practices of modern analytical instrumentations. Emphasis on hands-on experience in chemical analysis using UV-VIS, IC, ICP, GC, GC-MS, LC-MS, HPLC and NMR. Lecture, laboratory instruction and supervised project on unknown chemicals.
- CHEM 4638: ADVANCED ORGANIC CHEMISTRY**
Prerequisite: CHEM 3233, 3234 or equivalent. Advanced mechanistic study of the relationship between structure and reactivity in organic chemistry.
- CHEM 4639: FOOD SCIENCE AND HUMAN NUTRITION**
Prerequisite: General chemistry or biology course. Designed for science students. Understanding the nature of food constituents including proteins, lipids, carbohydrates, vitamins, minerals and molecular functions of the food constituents,

- food safety and how nutrients affect pathogenesis and health. Critically review information, claims and fads as pertaining to nutrition and health.
- CHEM 4729: UNDERGRADUATE RESEARCH**
Prerequisites: Approval of a faculty member under whose direction the research will be carried out, the chemistry program chair and the dean.
- CHEM 4730: INDUSTRIAL CHEMISTRY: PROCESS AND ENVIRONMENT**
Prerequisite: Organic Chemistry. Survey of industrially-important processes which are based on naturally-occurring or petroleum-derived organic materials. A component of the course involves Environmental Protection, such as the Clean Air and the Toxic Substances Control.
- *CHEM 4731: ADVANCED SPECTROSCOPIC ANALYSIS**
Prerequisites: Analytical, organic and inorganic chemistry. Designed for students seeking advanced analytical studies through practical spectra analysis.
- CHEM 4732: CHEMISTRY SEMINAR**
Prerequisite: Approval of instructor. The selection, study and formal presentation of topics from the chemical literature.
- CHEM 4819, 4839: INDEPENDENT STUDY IN CHEMISTRY**
Prerequisites: Approval of instructor, chair and associate dean.
- CHEM 4915: COOPERATIVE EDUCATION WORK TERM**
Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education. Educational paid work assignment by a student in the field of career interest and course of study. A technical report is required at the end of the semester. (Specific requirements are noted in the Cooperative Education catalog description.)
- CHEM 4931: SELECTED TOPICS IN CHEMISTRY**
Identified by specific title each time course is offered.

COMMUNICATION

Please note: Film courses are listed under ARTS and COMMUNICATION.

- COMM 3230: INTEGRATED MARKETING COMMUNICATION**
Overview of persuasive communication as it pertains in theory and practice to integrated marketing, public relations and advertising.
- COMM 3231: WRITING FOR THE MEDIA**
Journalistic writing, including fact gathering, news and feature writing styles, advertising, public relations and freelance writing.
- COMM 3531: MASS MEDIA AND SOCIETY**
Examination of historical and modern communications environment, focusing on development and impact of online, broadcasting and print industries as well as related conceptual issues of media ethics, law, economics and effects theory.
- COMM 3532: MEDIA LAW**
Examination of legal issues pertinent to the professional communicator, including First Amendment freedoms, defamation, privacy, copyright and obscenity.
- COMM 3533: UNDERSTANDING ADVERTISING**
Study of consumer advertising from several perspectives: historical forces that have shaped the field, advertising agency operations, and successful campaigns for print, broadcast and Internet media. Students learn about targeting demographics, innovative advertising methods and how to identify and collect information to be used in reports/projects.
- COMM 3534: GATHERING INFORMATION**
Research techniques in which students identify and collect information from libraries, archives, databases, the Internet and interviews. The gathered information is then used to write magazine articles, reports and strategic studies.
- COMM 3535: COMMUNICATION ETHICS**
Exposes students to a range of ethical principles and case studies with the ultimate goal of helping them work out their own professional standards and commit to them.
- COMM 4031: GLOBAL ISSUES IN FILM**
Film studies course in which global issues in a digital society are addressed using critical/cultural studies approaches. Focuses on world-wide cultural differences to foster knowledge and understanding of diversity issues.
- COMM 4232: PUBLIC RELATIONS WRITING**
Prerequisites: COMM 3230 and COMM 3231 or an equivalent course. Development of professional-level writing skills for public relations. Graduate students require permission by instructor.
- COMM 4233: SPEECH COMMUNICATION: THEORY AND PRACTICE**
Introduction to theory and application of Speech Communication including public speaking, critical listening skills, ethics, argumentation, group presentations and use of visual supporting materials.
- COMM 4434: WEB DESIGN**
Prerequisite: ARTS 4439 or permission of instructor. Creating and publishing Web pages using HTML. Study of formal design elements, theories, audience analysis and usability as students apply the Web to serve as a communication tool.
- COMM 4435: ADVANCED WEB DESIGN**
Prerequisite: COMM 4434 or permission of instructor. Study of advanced techniques in Web page construction including Web animation, dynamic HTML and site management. Also covers audience and usability testing.
- COMM 4530: 3D COMPUTER MODELING**
Prerequisites: ARTS 4433 and ARTS 4439 or permission of instructor. 3D modeling techniques for animation, images and 3D computer sculptures. How to build 3D models. Modeling techniques used in 3D software applications. Texture mapping and lighting in a 3D environment.

- COMM 4531: 3D ANIMATION**
Prerequisite: COMM 4530. Fundamental principles of animation. Introduces students to 3D computer animation techniques including key framing, path animation, non-linear animation and hierarchical animation. Covers storyboarding and animation project planning.
- COMM 4532: PHOTOJOURNALISM**
Prerequisite: ARTS 4439. Exploration of photography as a form of journalistic storytelling. Includes study of technical and emotional aspects of photographs, as well as techniques in Photoshop.
- COMM 4533: EDITING**
Prerequisite: COMM 3231. Techniques for correcting and refining articles for publication, broadcast or other media release.
- COMM 4534: VIDEO PRODUCTION AND EDITING**
Develops basic understanding of the technology behind video production as an information medium using non-linear editing equipment. Emphasis on concept, newsworthiness, technique and effect on audience.
- COMM 4536: MAGAZINE PUBLICATION**
Introduces students to magazine feature writing and the various phases of magazine production. Students produce Bayosphere, the university's literary art magazine and articles for outside publication.
- COMM 4538: DESKTOP PUBLISHING**
Prerequisite: ARTS 4439. Coverage of theory and technology related to creation of graphic products for offset printing. Includes examination of Photoshop, Illustrator, In Design and other software applications.
- COMM 4565: NEWSPAPER PUBLICATION**
Prerequisites: COMM 3231 or equivalent. Laboratory course in newspaper production. Includes: gathering facts; interviewing sources; writing articles, headlines, cutlines and teasers; layout and design. Students produce the university's student newspaper.
- COMM 4611: COMMUNICATION PORTFOLIO**
Exit course for Communication curriculum. Showcases a student's best work, both textual and graphic, from previous semesters. Communication faculty and outside reviewers evaluate the portfolio.
- COMM 4739: COMMUNICATION INTERNSHIP**
A supervised, on-site internship in a communication capacity.
- COMM 4839: INDEPENDENT STUDY IN COMMUNICATION**
Independent study in communication. Permission of instructor required.
- COMM 4931: SELECTED TOPICS IN COMMUNICATION**
Identified by a specific title each time course is offered.

COMPUTER ENGINEERING

- CENG 3112: LAB FOR DIGITAL CIRCUITS**
Corequisite: CENG 3132. Laboratory experiments using digital logic and small scale integrated circuits.
- CENG 3113: LAB FOR LINEAR CIRCUITS**
Corequisite: CENG 3133. Laboratory experiments demonstrating AC/DC circuits. Experiments using lumped constants and integrated circuits will be stressed.
- CENG 3114: LAB FOR ADVANCED LINEAR CIRCUITS**
Corequisite: CENG 3134. Experiments emphasizing the design and analysis of linear lumped-constant circuits.
- CENG 3115: LAB FOR INTRODUCTION DIGITAL SIGNAL PROCESSING**
Corequisite: CENG 3135. Laboratory experiments in Digital Signal Processing.
- CENG 3132: DIGITAL CIRCUITS**
Corequisite: CENG 3112. Applications of point set theory and Boolean Algebra to the analysis and design of asynchronous and synchronous digital circuits.
- CENG 3133: LINEAR CIRCUITS**
Prerequisites: 6 hours Calculus, University Physics II; co-requisite: CENG 3113. Basic electrical concepts; network theorems; circuit laws; resistance, capacitance, inductance, operational amplifiers, response of RC, RL and RLC circuits to initial conditions and constant forcing functions. Steady-state and transient analysis. Introduction to S-domain circuit analysis. Integration of computer applications using SPICE and MATLAB.
- CENG 3134: ADVANCED LINEAR CIRCUITS**
Prerequisites: CENG 3133/3113; corequisite: CENG 3114. Polyphase AC circuit analysis and design, network and passive and active analog filter design using MATLAB and SPICE, time and frequency domain analysis utilizing Fourier series and Fourier analysis techniques.
- CENG 3135: INTRODUCTION TO DIGITAL SIGNAL PROCESSING**
Prerequisites: Calculus I, II and C Programming; Corequisite: CENG 3115. Sinusoids, spectrum representation, sampling and aliasing, FIR and IIR digital filters. Laboratory instruction.
- CENG 3311: LAB FOR TELECOMMUNICATIONS AND NETWORKS**
Corequisite: CENG 3331. Laboratory experiments in digital and data communications.
- CENG 3331: INTRODUCTION TO TELECOMMUNICATIONS AND NETWORKS**
Prerequisite: CENG 3132; corequisite: CENG 3311. Introduction to data communications, error detecting/correcting codes, multiplexing, circuit and packet switching and local area networks.
- CENG 3511: LAB FOR COMPUTER ARCHITECTURE**
Prerequisites: CENG 3132, 3112; corequisite: CENG 3531. Laboratory experiments for Computer Architecture Design and Interfacing.
- CENG 3531: COMPUTER ARCHITECTURE**
Prerequisite: CENG 3132; corequisite: CENG 3511. Control logic, addressing, registers, instructions, memory units, arithmetic elements, interrupts and input-output structures.
- CENG 3624: INTRODUCTION TO ENGINEERING**

Introduction to engineering concepts including problem solving, the design process, engineering tools and topics in ethics. Laboratory instruction.

- CENG 4113: LAB FOR MICROPROCESSOR INTERFACING**
Corequisite: CENG 4133. Laboratory experiments interfacing the Intel microcomputer to peripherals, memory, and other devices.
- CENG 4131: TELECOMMUNICATIONS NETWORKING DEVICES**
Prerequisite: CENG 3331. Modems, multiplexers, data communications network analysis, bridges, routers, client/server concepts and NOS software.
- CENG 4133: MICROPROCESSOR INTERFACING**
Prerequisite: CENG 3531; prerequisite or corequisite: CSCI 3331. Corequisite: CENG 4113. Techniques for interfacing microcomputers to peripherals, memory and other devices.
- CENG 4135: DIGITAL SIGNAL PROCESSING APPLICATIONS**
Prerequisites: CENG 3115, CENG 3135. Fundamental concepts in Digital Signal Processing applications with algorithmic implementations using Texas Instruments, DSPs and XILINX Field Programmable Gate Arrays.
- CENG 4231: TELECOMMUNICATIONS SWITCHING SYSTEMS**
Prerequisite: CENG 3331 or equivalent. Introduction to switching systems, digital switching, ISDN and ATM networking. Laboratory instruction.
- CENG 4331: ANALYSIS AND DESIGN OF LINEAR SYSTEMS**
Prerequisites: Ordinary Differential Equations and basic circuit analysis. Discrete time signals and systems, z-transforms and transfer functions, state space analysis, introduction to digital signal processing and digital filter design using conventional and convolutional techniques, applications from communications and control theory. Computer solutions using MATLAB and SPICE.
- CENG 4431: COMPUTER SYSTEM RELIABILITY AND SAFETY**
Prerequisites: MATH 4434 or equivalent, SWEN 4432. Computer reliability and safety models and metrics, redundancy and recovery techniques, fault tree analysis.
- CENG 4514: LABORATORY FOR DIGITAL DESIGN**
Corequisite: CENG 4534: Digital design laboratory emphasizing solutions using Field Programmable Gate Arrays and Complex Programmable Logic Devices.
- CENG 4534: DIGITAL SYSTEM DESIGN**
Prerequisite: CENG 3132 or equivalent. Corequisite: CENG 4514. Combinational and sequential digital design of practical systems. Laboratory Instruction.
- CENG 4625, 4626: SENIOR PROJECTS**
Prerequisite: Final year before graduation or permission of instructor. Project course requiring each student to complete a project approved by the instructor. The student must submit a written final report and give an oral presentation to faculty and students. Laboratory instruction.
- CENG 4632: DIGITAL CONTROL DESIGN**
Prerequisite: CENG 4331. Analysis and design of digital control systems with applications critical systems.
- CENG 4819, 4839: INDEPENDENT STUDY IN COMPUTER ENGINEERING**
Prerequisites: Approval of instructor, chair and associate dean.
- CENG 4915: COOPERATIVE EDUCATION WORK TERM**
Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education. Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description.)
- CENG 4931: SELECTED TOPICS IN COMPUTER ENGINEERING**
Identified by specific title each time course is offered.

COMPUTER INFORMATION SYSTEMS

- CINF 3131: PROGRAMMING WITH VISUAL BASIC**
Programming with Visual Basic with emphasis on object-oriented programming and the users of integrated development environments. Data types, control structures, functions, subroutines, files, classes and controls. Development using the .Net framework. Laboratory instruction.
- CINF 3231: INFORMATION SYSTEMS THEORY AND PRACTICE**
Prerequisite: A high level programming language. Introduction to the theory and practice of information systems. Development, application and management of IS. Hardware and software issues for IS. Ethical, social and security related issues of IS. IS environments. Laboratory instruction.
- CINF 3331: BUSINESS DATA COMMUNICATIONS**
Introduction to business data communications. WANs, LANs and Internet concepts. A survey of data communications with emphasis on the impact of digital technology on the operation, management and economics of computer information systems.
- CINF 3931: TOPICS IN COMPUTER INFORMATION SYSTEMS**
Identified by specific title each time course is offered. Laboratory instruction.
- CINF 4038: TOPICS IN COMPUTER INFORMATION SYSTEMS-NON-MAJORS**
Identified by specific title each time course is offered. Not to be taken by majors in computing program. Laboratory instruction.
- CINF 4230: WEB APPLICATION DEVELOPMENT**
Prerequisites: CSCI 3133, CSCI 3134, CSCI 3333. Survey of languages, tools and techniques for Web Application Development, HTML, XHTML, CSS, JavaScript, Dynamic HTML, Server-side web development using .Net Framework with ASP.Net and C#. Perl CGI programming with Perl, XML. Laboratory instruction.
- CINF 4233: COMPUTER SECURITY**

- Prerequisites: CSCI 3331, CSCI 3532. Introduction to encryption, decryption and cryptographical protocols; security components; security policies and mechanisms in computer applications, computer systems and networks; legal/ethical issues in computer security. Laboratory instructions.
- CINF 4234: MODERN SYSTEMS ANALYSIS AND DESIGN**
Prerequisite: CINF 3231. Key concepts and principles of systems analysis; Techniques and tools of the systems analysis methodology; Current issues of systems analysis and business process reengineering.
- CINF 4334: ELECTRONIC COMMERCE**
Prerequisites: CINF 3231 and CINF 4230 (or CSCI 4230). Key concepts and principles of e-commerce; importance of e-commerce in the global economy; technological elements of the infrastructure of e-commerce; business and social factors associated with the success or failure of e-commerce; critical thinking to strategize and plan technology based solutions to achieve business goals.
- CINF 4819, 4839: INDEPENDENT STUDY IN COMPUTER INFORMATION SYSTEMS**
Prerequisites: Approval of instructor, chair and associate dean.
- CINF 4634: COMPUTER SYSTEMS ADMINISTRATION**
Prerequisite: CSCI 3333. Administration of computers and their operating systems, both as stand-alone and in network topologies. Unix is used as an example. Laboratory instruction.
- CINF 4838: SENIOR PROJECT IN COMPUTER INFORMATION SYSTEMS**
Prerequisites: CSCI 4333 and SWEN 4432. May be taken only during the final semester before graduation. Registration is restricted to students with an approved Candidate Plan of Study. Students develop a significant computer application for a realistic project in CIS that emphasizes the entire software lifecycle. Professional behavior, ethics and teamwork will be developed. Students prepare written reports and give oral presentations. Laboratory instruction.
- CINF 4915: COOPERATIVE EDUCATION WORK TERM**
Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education. Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description.)
- CINF 4931: ADVANCED TOPICS IN COMPUTER INFORMATION SYSTEMS**
Identified by specific title each time course is offered. Laboratory instruction.

COMPUTER SCIENCE

*Pending Coordinating Board approval

- CSCI 3033: CONCEPTS OF DATA STRUCTURES**
Prerequisite: Programming in C. An introduction to the concepts of data structures for non-computing majors, including records, tables, linked lists, stacks and queues. Abstract data types, recursion, searching, sorting and an introduction to binary trees. Not to be taken by computing and engineering majors. Laboratory instruction.
- CSCI 3131: PROGRAMMING WITH VISUAL BASIC**
Programming with Visual Basic with emphasis on object-oriented programming and the uses of integrated development environments. Data types, control structures, functions and subroutines, files, classes, controls. Development using the .NET framework. Laboratory instruction.
- CSCI 3132: PROGRAMMING IN PASCAL**
Programming with the Pascal programming language with emphasis on structural programming techniques. A study of Pascal including control structures, functions and procedures, arrays, records, I/O, sequential files and relative files. Software development including analysis, design, coding, implementation, testing and documentation. Laboratory instruction.
- CSCI 3133: PROGRAMMING WITH C**
Prerequisite: Pascal or Ada. Programming techniques with the C programming language, emphasis on modular design, data abstraction and encapsulation using ANSI C. Use of all features of C including arrays, pointers, structures, prototypes, separate compilation and the C-preprocessor. Development of generic functions and study of portability issues. Laboratory instruction.
- CSCI 3134: SOFTWARE DEVELOPMENT WITH JAVA**
Prerequisite: C, Pascal or Ada. Software development with the Java programming language and the Java class libraries. Design of applets and standalone Java applications. Laboratory instruction.
- CSCI 3231: NUMERICAL METHODS**
Prerequisites: Calculus, linear algebra, ordinary differential equations and programming in C, Pascal, Ada or Java. Taylor series and error analysis, interpolation, solution of linear and non-linear equations, least squares, integration of functions and differential equations. Programming assignments. Laboratory instruction.
- CSCI 3233: OBJECT-ORIENTED DESIGN AND PROGRAMMING**
Prerequisite: Programming in C or Java. Basic elements of object-oriented technology including classes, their attributes, methods and relations to other classes, objects, classification and inheritance, encapsulation, polymorphism, object-oriented analysis, design and programming assignments in C++ language under UNIX. Laboratory instruction.
- *CSCI 3234: ADVANCED SOFTWARE DEVELOPMENT**
Prerequisites: CSCI 3134 or equivalent Object Oriented Program course or appropriate grade on the AP Computer Science Exam. A review of OOP paradigm (encapsulation, inheritance and polymorphism) and advanced software development topics and techniques, including GUI components and event driven programming.
- CSCI 3331: COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE**
Prerequisite: Programming in C. Basic elements of computer hardware and software, data representations, instruction formats and addressing modes, assembly language instructions, programming techniques in assembly language, macro assemblers, link-loaders, functions of operating systems and input/output programming and peripherals. Laboratory instruction.

- CSCI 3333: DATA STRUCTURES**
Prerequisite: CSCI 3133 or corequisite: CSCI 3134. Advanced programming techniques and data structures including tables, linked lists, queues and stacks. Abstract Data Types, Recursion, Searching and Sorting. Binary Trees. Elementary algorithm design and implementation. Laboratory instruction in UNIX.
- CSCI 3532: ADVANCED DATA STRUCTURES AND ALGORITHMS**
Prerequisites: MATH 3331 and CSCI 3333 or equivalent. Binary trees, trees, graph theory, finite state automata, external storage devices, sequential and direct file organizations, file processing techniques, hashing, B-trees, external sorting, P and NP problems, algorithmic analysis. Laboratory instruction.
- CSCI 3632: ARTIFICIAL INTELLIGENCE PROGRAMMING LANGUAGES**
Prerequisite: CSCI 3333. An introduction to AI programming languages. Programming assignments in LISP and PROLOG. Laboratory instruction.
- CSCI 3931: SELECTED TOPICS IN COMPUTING**
Identified by specific title each time course is offered.
- CSCI 4033: CONCEPTS OF DATABASE SYSTEMS**
Prerequisite: CSCI 3033. An introduction to the concepts of database systems for non-computing majors, including modeling and implementation of database systems, data models, relational models, database languages, relational algebra, SQL, normalization theory and Web database connectivity. Not to be taken by computing and engineering majors. Laboratory instruction.
- CSCI 4037: COMPUTING ESSENTIALS**
Modern computing software tools and information technologies taught in a practical, hands-on manner. Topics covered: word processing, databases, spreadsheets, presentation software, computer programming, the Internet and development of home pages using HTML and other tools. Emphasis is on the development and application of computer skills to the student's program area. Laboratory instruction. Not for credit for computing science majors.
- CSCI 4038: TOPICS IN COMPUTER SCIENCE - NON MAJORS**
Identified by topics each time the course is offered. Not to be taken for credit by majors in computing programs. Laboratory instruction.
- CSCI 4132: NETWORK PROTOCOLS**
Prerequisites: CSCI 3331 and CENG 3331. Data communications systems software concepts; computer network architecture; ISO model. Laboratory instruction.
- CSCI 4134: ADVANCED SOFTWARE DESIGN WITH JAVA**
Prerequisite: CSCI 3134 or equivalent. Advanced software design with the Java programming language, including multi-threaded applications, exception handling, network programming, Java Beans, security issues and advanced AWT usage. Laboratory instruction.
- CSCI 4135: ADVANCED SOFTWARE DEVELOPMENT WITH .NET FRAMEWORK AND C#**
Prerequisites: CSCI 3333 and CSCI 3233 or CSCI 3134 or equivalent. In depth study of the managed environment provided by .NET Framework and its use in developing advanced windows applications utilizing OOP concepts and techniques. Includes GUI issues, event and exception handling, multi-threading, networking, collections, file and database access as well as an introduction to ASP.NET, Web Forms and Web Services.
- CSCI 4230: WEB APPLICATION DEVELOPMENT**
Prerequisites: CSCI 3133, CSCI 3134, CSCI 3333. Survey of languages, tools and techniques for Web application development, HTML, XHTML, CSS, JavaScript, dynamic HTML, Server-side web development using .Net Framework with ASP.NET and C#, Perl, CGI programming with Perl, XML. Laboratory instruction.
- CSCI 4233: COMPUTER SECURITY**
Prerequisites: CSCI 3331 and CSCI 3532. Introduction to encryption, decryption and cryptographical protocols; security components; security policies and mechanisms in computer applications, computer systems and networks; legal/ethical issues in computer security. Laboratory instruction.
- CSCI 4333: DESIGN OF DATABASE SYSTEMS**
Prerequisite: CSCI 3333. Design of database systems, data description and manipulation languages, data models, entity-relationship model, relational model, SL, relational algebra, normalization theory, DBMS, Internet, database design, data flow diagrams, and implementation of database systems. Laboratory instruction.
- CSCI 4530: COMPUTER GRAPHICS AND INTERFACE DESIGN**
Prerequisites: Calculus I, Linear Algebra. Two-dimensional graphics algorithms, point and coordinate transformations, animation on graphics terminals and systems. Laboratory instruction using Solaris X-Windows-environment.
- CSCI 4531: ADVANCED PROGRAMMING IN UNIX**
Prerequisites: CSCI 3133 or equivalent and CSCI 3333. Program development in a multiprocessing environment, including; process and file system data structures, process control, synchronization and communication between concurrent processes, shared memory, threads and signals. Advanced input/output mechanisms such as asynchronous I/O and memory mapped I/O. Library functions including system function and database library routines. Laboratory instruction.
- CSCI 4534: OPERATING SYSTEMS**
Prerequisites: CSCI 3331, CSCI 3333, CENG 3531 or equivalents and senior standing. Analysis and design of basic operating systems concepts, including multiprocessing, interprocess communication and synchronization, scheduling, file systems, memory management, input/output and deadlock. Examples drawn from real operating systems including Unix and Windows NT. Laboratory instruction.
- *CSCI 4632: COMPUTER GAME PROGRAMMING: THEORY AND PRACTICE**
Prerequisite: Previous programming experience in a high level language. Applying a fourth generation game engine and language on designing and developing 2D and 3D real-time multimedia simulations and games for education, training, robotics and entertainment. Laboratory instruction.
- CSCI 4634: COMPUTER SYSTEMS ADMINISTRATION**

- Prerequisite: CSCI 3333. Administration of computers and their operating systems, both as stand-alone and in network topologies. Unix is used as an example. Laboratory instruction.
- CSCI 4819, 4839: INDEPENDENT STUDY IN COMPUTER SCIENCE**
Prerequisites: Approval of instructor, chair and associate dean.
- CSCI 4837: SOCIAL, ETHICAL AND SECURITY-RELATED ISSUES IN COMPUTING**
Examination of ethics in computer-related professions. Analysis of case studies. The social impact of computing, especially as related to the Internet, Commerce, Education and Government. Security and Privacy issues in connection with producing and maintaining software and hardware products. Students will make oral presentations, lead group discussions and write technical reports.
- CSCI 4838: SENIOR PROJECT IN COMPUTER SCIENCE**
Prerequisites: CSCI 3532 and SWEN 4432. May be taken only during the final semester before graduation. Registration is restricted to students with an approved Candidate Plan of Study. Students develop a significant computer application for a realistic project. Emphasis will be on practical experience on all phases of constructing a computer solution. Professional behavior, ethics and teamwork will be developed throughout the project. Students prepare written reports and give oral presentations. Laboratory instruction.
- CSCI 4915: COOPERATIVE EDUCATION WORK TERM**
Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education. Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description.)
- CSCI 4931: SELECTED TOPICS IN COMPUTER SCIENCE**
Identified by specific title each time course is offered.

CRIMINOLOGY

*Pending Coordinating Board approval

- CRIM 3132: CRIMINOLOGY**
Theories of causation; patterns and social response. (Crosslisted with SOCI 3132).
- CRIM 3335: DEVIANCE**
Theories of the existence of deviance in society; management of spoiled identities. (Crosslisted with SOCI 3335).
- CRIM 4133: JUVENILE DELINQUENCY**
Individual and community aspects of juvenile delinquency; theories of causes and modes of control. (Crosslisted with SOCI 4133).
- CRIM 4135: THE DEATH PENALTY**
History and development of capital punishment as a social institution. Focus on issues such as deterrence, discrimination and execution of innocent prisoners. (Crosslisted with SOCI 4135).
- CRIM 4330: CRIMINAL INVESTIGATION**
Review of methods and techniques used by investigators to chronologically reconstruct a crime in order to arrest the criminal offender.
- CRIM 4331: PRISON AND SOCIETY**
Correctional institutions in the United States; analysis of their changing roles and functions. (Crosslisted with SOCI 4331).
- CRIM 4332: SOCIAL PROBLEMS AND THE LEGAL SYSTEM**
Course focuses on the confrontation between individual rights and welfare of society. Issues are examined from perspectives of sociological, philosophical and legal theories.
- CRIM 4333: PROBATION AND PAROLE**
Exploration of alternatives to incarceration, emphasizing the major community-based activities of probation and parole. Includes discussion of intermediate punishments, restitution programs, house arrest and electronic monitoring of offenders.
- CRIM 4334: CRIMINAL LAW**
Survey of structure and philosophy of criminal law; topics include criminal liability, criminal defenses and types of offenses. (Crosslisted with SOCI 4334).
- CRIM 4335: RACE AND JUSTICE**
Analysis of crime rates in United States and involvement of racial groups through theoretical exploration and practices in and out of the justice system.
- CRIM 4337: ORGANIZED CRIME**
Examines organized criminal groups, such as the "mafia" and other criminal groups worldwide. Applies historical, economic, political and legal perspectives. Emphasizes victimless crime, labor rackets and extortion. Covers special governmental commissions and legislative reforms.
- CRIM 4338: POLICING AND SOCIETY**
Critical analysis of role and function of American law enforcement including historical development and evolution, contemporary police organizations, individual officers and relationship between police and community. Coverage of objectives of police: law enforcement, service, order maintenance and crime prevention.
- *CRIM 4835: RESEARCH METHODS**
Introductory course in research methods in criminology. Topics include theory and measurement, designing and conducting research and data collection and analysis.
- CRIM 4839: INDEPENDENT STUDY IN CRIMINOLOGY**
Prerequisite: Approval of advisor and independent study director.
- CRIM 4930: CONTEMPORARY ISSUES IN CRIMINOLOGY**
Prerequisites: Completion of at least 80 credits and at least four courses in Criminology. Course assesses students' skills in theory, research and subject content. Explores the many opportunities provided by degree in Criminology.

CRIM 4931: SELECTED TOPICS IN CRIMINOLOGY
Identified by specific title each time course is offered.

DECISION SCIENCES

- DSCI 3131: QUANTITATIVE METHODS FOR MANAGEMENT**
Prerequisite: DSCI 3231 or equivalent. Introduction to quantitative techniques for management; probability, inventory and production models, linear programming, queuing, replacement models, Markov analysis and network models.
- DSCI 3231: STATISTICS I**
Prerequisites: College algebra and finite math. Introduction to probability and statistics; descriptive measures, probability distribution, sample statistics, estimation, confidence intervals, tests of hypotheses, chi-square, F-distribution, linear regression and correlation.
- DSCI 3232: STATISTICS II**
Prerequisite: DSCI 3231 or equivalent. Statistical inference, decision-making, prediction, sample design, significance tests, experimental design, non-parametric methods, decision theory, multiple regression and correlation, time series and index numbers.
- DSCI 4531: FORECASTING SYSTEMS**
Prerequisite: DSCI 3231 or equivalent. Techniques for forecasting; time series, statistical methods and analysis of error.
- DSCI 4839: INDEPENDENT STUDIES IN DECISION SCIENCES**
Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required. Independent directed study in Decision Sciences.
- DSCI 4931: SELECTED TOPICS IN DECISION SCIENCES**
Identified by specific title each time course is offered.

EARLY CHILDHOOD EDUCATION

- ECED 4031: HISTORICAL AND RECENT TRENDS IN EARLY CHILDHOOD PROGRAMS**
Historical, societal, political and economic factors that influence progressive early childhood programs and child services. Field experiences required.
- ECED 4032: DEVELOPING COMPETENCE IN YOUNG CHILDREN**
Prerequisites: INST 3133 (for EC-4 students only) and TCED 4033 (For EC-6 students only). Focus on the interrelationships among the content areas, skills, concepts and practices that support early competence in young children. Integration of national and state teaching standards into curriculum planning is featured. Field experiences required.
- ECED 4033: CHILD GUIDANCE & CLASSROOM MANAGEMENT FOR YOUNG CHILDREN**
Theories and strategies for guiding the behavior of young children (birth to age 5) inside and outside the classroom environment. Focus will be on effective strategies for behavior management including the role of problem solving, the classroom community and family involvement. Field experiences required.
- ECED 4034: NUTRITION, HEALTH AND SAFETY**
Study of nutrition, health, safety and related activities, including skill development in management of issues, guidelines and practices in nutrition, community health, hygiene and safety. Integration of these principles applies to a variety of EC-4 settings. Field experiences required.
- ECED 4131: READING DEVELOPMENT IN YOUNG CHILDREN**
Prerequisites: LLLS 4131 and LLLS 4435. Focus on early language and literacy development of young children. Oral language development, beginning reading and writing strategies and family literacy are featured. Field experiences required.
- ECED 4133: DEVELOPMENTAL THEORIES OF YOUNG CHILDREN**
Focus on historic and current theories of children's learning and development.
- ECED 4134: OBSERVATIONAL/DEVELOPMENTAL ASSESSMENT OF YOUNG CHILDREN**
Prerequisite: ECED 4032. Evaluation and uses of developmental and cognitive assessment instruments and their theoretical bases will be explored. Students will develop informal assessments of the intellectual, language, social, physical and motor development of young children. Field experiences required.
- ECED 4230: PLAY**
Focus on philosophy, research and applications of modern play and environments for play. Influences of play on child development, cognition, culture and overall health. The role of play in the early childhood curriculum will be emphasized. Field experiences required.
- ECED 4231: INFANTS AND TODDLERS**
Overview of human development from prenatal stages through the first two years of life. Emphasis is placed on the interrelationship of cognitive, physical, social and emotional development in a variety of contexts and cultures. Appropriate curriculum and environment for infants and toddlers will be emphasized. Field experiences required.
- ECED 4232: CULTURAL AWARENESS FOR YOUNG CHILDREN**
Prerequisite: SILC 4135. Focus on impact of diversity on development of young children. The influence of culture and social class on children's socialization and cognition will be discussed. Research and theories to support the development of minority children will be emphasized. Field experiences required.
- ECED 4233: PRESCHOOL CURRICULUM**
Overview of integrated curriculum for children ages 3-5 including appropriate content, methodology, environment, materials and resources. Field experiences required.
- ECED 4234: ADVANCED ADMINISTRATION OF PROGRAMS FOR YOUNG CHILDREN**
This course will build upon the content in the two lower courses in program administration. It will focus on issues related to effective leadership and supervision, including adult learning theory, staff development, curriculum development and

program accreditation. Relevant laws and standards relating to young children and program management will also be featured. Field experiences required.

- ECED 4332: EARLY CHILDHOOD SPECIAL EDUCATION**
Prerequisite: SPED 4030 or SPED 5030. A study of atypical development in infants and young children with a focus on educational planning and programming. Field experiences required.
- ECED 4333: ADVANCED EARLY CHILDHOOD SPECIAL EDUCATION**
This course will extend key topics in early childhood special education presented in the SPED/ECED 4332 course, specifically strategies and techniques used by practitioners in early childhood special education settings serving children birth to age 5. The research-based topics will include sign language, picture exchange, communication systems, portfolios, social scripts/videos, music therapy, as well as other advanced strategies and techniques used in settings with young children with communication/language needs, social/behavioral needs, and cognitive needs. Field experiences required.
- ECED 4335: CHILDREN AND FAMILIES**
Social contexts in which a child develops, the relationships of individuals in these social contexts and the interaction within and between cross-cultural contexts. Field experiences required.
- ECED 4737: PRACTICUM I**
Supervised field experience in an educational setting with young children and families.
- ECED 4738: PRACTICUM II**
Prerequisite: ECED 4737. Supervised field experience in a program that gives students an experience with children and families in a second setting related to their track in the program.
- ECED 4839: INDEPENDENT STUDY IN EARLY CHILDHOOD EDUCATION**
Prerequisites: Approval of instructor and Associate Dean.
- ECED 4931: SELECTED TOPICS IN EARLY CHILDHOOD EDUCATION**
Identified by title each time course is offered.

ECONOMICS

- ECON 3131: MONEY AND BANKING**
Prerequisite: Principles of economics or equivalent. The role of money and the banking system in the economy; monetary theory and policy and international monetary conditions.

EDUCATION

- EDUC 4030: SCHOOL AND COMMUNITY**
Historical, legal and philosophical foundations of education in American society.
- EDUC 4130: THEORIES OF EDUCATIONAL PSYCHOLOGY**
A study of major theories of learning, motivation, cognition and moral development as they apply to professionals and learners, including constraints imposed by law and social policy.
- EDUC 4132: PROFESSIONAL SEMINAR**
Prerequisite: Admission to Teacher Education Program. Ethical, legal and multicultural considerations in teaching. Emphasis on professional responsibilities of teachers, legally, ethically and within ethnically diverse cultures. Field experiences required.
- EDUC 4839: INDEPENDENT STUDIES IN EDUCATION**
Prerequisites: Approval of instructor and Associate Dean.
- EDUC 4931: SELECTED TOPICS IN EDUCATION**
Identified by specific title each time course is offered.

ENVIRONMENTAL MANAGEMENT

- ENVR 3131: FOUNDATIONS OF ENVIRONMENTAL MANAGEMENT**
Presentation, analysis and application of the principles of managing human interaction with the environment.
- ENVR 4131: PRINCIPLES OF AIR QUALITY MANAGEMENT**
Prerequisites: Introductory chemistry, ENVR 3131 or equivalents. Analysis of practices and technology for the control of atmospheric pollution.
- ENVR 4132: WATER MANAGEMENT PRINCIPLES**
Prerequisites: Introductory chemistry, ENVR 3131 or equivalents. Principles of effective water resources management; national and state water resource practices.
- ENVR 4133: TECHNIQUES OF ENVIRONMENTAL ASSESSMENT**
Prerequisite: ENVR 3131 and ENVR 4135 or equivalents. Familiarization with and basic critique of environmental impact assessment, environmental auditing and other decision and planning tools.
- ENVR 4135: INTRODUCTION TO ENVIRONMENTAL LAW**
Application of legal concepts and systems to environmental issues; basic federal and state environmental legislation.
- ENVR 4136: FUNDAMENTALS OF HAZARDOUS WASTE MANAGEMENT**
A survey of social and technical aspects of current management and remediation practices.
- ENVR 4137: SOLID WASTE MANAGEMENT PRACTICES**
A study of the management practices and technology used for non-hazardous solid waste collection, treatment, disposal and reuse.
- ENVR 4331: ENVIRONMENTAL PUBLIC POLICY**
Current environmental issues: problems, causes, alternative solutions and economic and health implications.
- ENVR 4332: THE PROCESS OF ENVIRONMENTAL PERMITTING**
A practical survey of the permits and procedures used by environmental agencies for regulatory control.
- ENVR 4333: INTRODUCTION TO POLLUTION CONTROL TECHNOLOGY**

Prerequisite: ENVR 3131 or equivalent. An introduction to the technical aspects of pollution control including principles, equipment applications, manpower and energy requirements and economic factors.

- ENVR 4334: HEALTH AND SAFETY MANAGEMENT**
A survey of the technology and practices employed by management in providing a healthy and safe working environment.
- ENVR 4336: ADMINISTRATIVE PRACTICE AND ETHICAL ISSUES**
The study of administrative agencies and their structure and authority; practical considerations when interacting with administrative agencies on environmental issues; ethical issues in environmental management.
- ENVR 4819; 4839: INDEPENDENT STUDIES IN ENVIRONMENTAL MANAGEMENT**
(Variable credit, 1 or 3 semester hours.) Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required. Independent directed study in Environmental Management.
- ENVR 4931: SELECTED TOPICS IN ENVIRONMENTAL MANAGEMENT**
Identified by specific title each time course is offered.

ENVIRONMENTAL SCIENCE

- ENSC 3033: INTEGRATED ENVIRONMENTAL SCIENCES**
Study of human influences on the biological, chemical and physical environment. For non-science majors only.
- ENSC 4632: ENVIRONMENTAL SCIENCE SEMINAR**
Students will survey the literature, give presentations and prepare research papers in environmental science. Satisfies the environmental science program core requirement.
- ENSC 4739: INTERNSHIP IN ENVIRONMENTAL SCIENCE**
Prerequisites: 15 hours of upper-level credit; approval of faculty advisor and associate dean. Supervised work experience in an approved industrial firm or governmental agency. Written and oral reports required.
- ENSC 4819, 4829, 4839: INDEPENDENT STUDY IN ENVIRONMENTAL SCIENCE**
Prerequisites: Approval of instructor, chair and associate dean.
- ENSC 4915: COOPERATIVE EDUCATION WORK TERM**
Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education. Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description.)
- ENSC 4931: TOPICS IN ENVIRONMENTAL SCIENCE**
Identified by specific title each time course is offered.

FINANCE

- FINC 3031: PERSONAL FINANCE**
Practical financial management of personal money matters; budgeting insurance, taxes, borrowing, saving, investing and retirement and estate planning. This course will not meet the finance elective requirement for finance majors.
- FINC 3331: BUSINESS FINANCE**
Prerequisites: Principles of accounting, principles of economics and DSCI 3231 or equivalent. Fundamental tools and techniques in financial planning; working capital management, capital budgeting; cost of capital; dividend theory, mergers and business failures.
- FINC 3333: INTERMEDIATE FINANCIAL MANAGEMENT**
Prerequisite: FINC 3331 or equivalent. Advanced principles and practices in the financial administration of business enterprises.
- FINC 3336: RISK MANAGEMENT**
Prerequisite: FINC 3331 or equivalent. Techniques for managing pure risks for individuals and small businesses, and the characteristics of life, health, and property insurance are studied.
- FINC 3531: REAL ESTATE INVESTMENT ANALYSIS**
Analytical foundations of evaluating real estate investments and exploration of the methods of financing such investments.
- FINC 3533: INVESTMENTS**
Prerequisite: FINC 3331 and FINC 3333 or equivalents. Personal investments in bonds, mortgages, stocks and other securities; financial statements and credit.
- FINC 4331: CONTEMPORARY FINANCIAL INSTITUTIONS**
Prerequisite: FINC 3331 or equivalent. Management policies of commercial banks, savings and loan associations, credit unions, finance companies and other financial intermediaries.
- FINC 4431: STRUCTURE OF FINANCIAL STATEMENTS**
Prerequisites: FINC 3331 and ACCT 3431 or equivalents. Evaluation of the structure of financial statements and their use in financial decision-making.
- FINC 4531: INTERNATIONAL FINANCIAL OPERATIONS**
Prerequisite: FINC 3331 or equivalent. International transactions and financial flows; balance of payments, foreign exchange market, worldwide commercial policy and financing.
- FINC 4532: SEMINAR IN INTERNATIONAL FINANCE**
Field experience involving meetings with financial officers of companies operating outside of the United States. Discussions will involve matters relating to the financing of international business activities and operating in a non-American business environment.
- FINC 4536: INCOME TAXATION**
Prerequisites: FINC 3331 and Principles of Accounting, or equivalents. An analysis of the federal income tax laws as they apply to individuals and the financial planning process. (Crosslisted with ACCT 4331.)
- FINC 4631: TREASURY MANAGEMENT**

Prerequisite: FINC 3331 or equivalent. Short-term asset and liability management, including the issues essential to the day-to-day management of cash flows associated with the operating cycle of a firm.

- FINC 4733: RETIREMENT AND BENEFITS PLANNING**
Prerequisites: FINC 3331 and FINC3533 or equivalents. Examination of the various retirement vehicles, group life and health programs, and government required benefits. Integration into an overall financial planning process is emphasized.
- FINC 4736: ESTATE PLANNING**
Prerequisites: FINC 3331 and FINC 3533 or equivalents. Examination of federal and state laws concerning the distribution of assets in an estate. Significant attention is made to tax minimization strategies.
- FINC 4739: INTERNSHIP IN FINANCE**
Prerequisites: 15 hours of upper-level credit and approval of program director. Six hours of supervised work experience each week in an approved financial institution or firm.
- FINC 4839: INDEPENDENT STUDIES IN FINANCE**
Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required. Independent directed study in Finance.
- FINC 4931: SELECTED TOPICS IN FINANCE**
Identified by specific title each time course is offered.

FIRE SERVICES ADMINISTRATION

- FRAD 4234: ORGANIZATIONS IN SOCIETY**
Study of several aspects of our organizational society such as roles, power and membership; investigation of fire service organizations and their influence on individuals.
- FRAD 4238: SOCIAL CONFLICT AND MEDIATION**
Examines theories of social conflict and application of dispute resolution/mediation techniques within fire service organizations.
- FRAD 4433: PUBLIC SERVICE MANAGEMENT**
Overview of basic theories of administrative organization, relationships and behavior. How to structure, manage, direct and control units within fire service organizations.
- FRAD 4434: PUBLIC SERVICE LEADERSHIP**
Examination of determinants and consequences of effective and ineffective leadership in fire service organizations.
- FRAD 4435: STRATEGIC PLANNING**
Strategic planning and facilitation of organizational change in fire service organizations.
- FRAD 4436: ORGANIZATIONAL COMMUNICATION**
Examination of general communication processes and dynamics within fire service organizations.
- FRAD 4437: MANAGERIAL ISSUES IN DIVERSITY**
Explores what managers in Fire Services Administration need to know about diversity and minority/majority relations.

GEOGRAPHY

- GEOG 3137: GLOBAL GEOGRAPHY**
Analysis of physical, economic and political patterns of different world regions.
- GEOG 4030: GEOGRAPHY OF THE UNITED STATES AND CANADA**
Analysis of the interrelationships among physical, cultural, economic and political patterns of the United States and Canada including the State of Texas.
- GEOG 4031: URBAN GEOGRAPHY**
Examination of the interrelationships among physical geography and urbanization, the internal land utilization of cities, urban historical geography and central place theory.
- GEOG 4032: GEOGRAPHY OF LATIN AMERICA**
Analysis of the physical, cultural, economic and political patterns of Latin America and its relationship to other world regions.
- GEOG 4033: GEOGRAPHY OF TEXAS**
Analysis of the diverse cultural, economic, environmental and political patterns of Texas. Exploration of the state's regional characteristics and of the spatial relationships with areas outside the state.
- GEOG 4034: PRINCIPLES OF MAP READING AND INTERPRETATION**
A wide variety of maps including cognitive, thematic, topographic, weather and computer generated (GIS) maps are surveyed from the points of view of their interpretations and applications. Attention will be directed also to the history of cartography, the interpretation of air photos and NASA images and statistical graphs. No drafting background or artistic ability needed.
- GEOG 4131: HISTORICAL GEOGRAPHY**
An introduction to historical geography as a subfield of geography with an emphasis on the evolving patterns of land use and settlement in the United States from the pre-colonial period to the present.
- GEOG 4132: HUMAN GEOGRAPHY**
Stresses the importance of human/environment relationships to a global society. Focuses on the world distribution of natural and human resources as they interrelate and provide character to places.
- GEOG 4133: MODERN PHYSICAL GEOGRAPHY**
An identification of the geographical dimensions of ecosystems and earth's physical characteristics as it relates to the process, distribution patterns and implications for humans.
- GEOG 4134: GEOGRAPHIC CONCEPTS AND SKILLS**
Prerequisites: GEOG 3137, GEOG 4132 and GEOG 4133. Geographic concepts and skills which are connected with the new social studies curriculum and the appropriate teaching models, strategies and assessment.
- GEOG 4135: POLITICAL GEOGRAPHY**

The interrelationship between political activities and spatial distributions of world regions. Topics include the concept of state, political core regions, international spheres of influence and confrontations, boundaries and contemporary issues and problems.

- GEOG 4136: ECONOMIC GEOGRAPHY**
An analysis of the world distribution of fundamental occupations and commodities.
- GEOG 4231: FUNDAMENTALS OF GEOGRAPHIC INFORMATION SYSTEMS**
An interdisciplinary introduction to the fundamentals of GIS as a method of organizing, displaying and analyzing spatial data. The course also provides an introduction to basic cartographic conventions.
- GEOG 4232: PROBLEMS IN GEOGRAPHIC INFORMATION SYSTEMS**
Prerequisites: GEOG 3137, GEOG 4132 and GEOG 4133. A course designed specifically for advanced GIS students who will identify, interpret, analyze and evaluate a geographical problem.
- GEOG 4233: ADVANCED GEOGRAPHIC INFORMATION SYSTEMS**
Prerequisites: GEOG 3137, GEOG 4132 and GEOG 4133. Analytical aspects of spatial data, analysis and modeling. Theoretical and applied aspects are examined through a series of practical exercises and assignments.
- GEOG 4839: INDEPENDENT STUDIES IN GEOGRAPHY**
Prerequisites: Approval of instructor and Associate Dean.
- GEOG 4931: SELECTED TOPICS IN GEOGRAPHY**
Identified by specific title each time course is offered.

GEOLOGY

(*After the title denotes courses required for any certification in Earth Science).

- GEOL 3034: FUNDAMENTALS OF PLANETARY GEOLOGY***
Study of the origins and evolution of Earth, Mercury, Venus, Mars and the Moon. Physical processes essential to understanding geology are stressed. Laboratory exercises included. Suitable for non-majors. Not available for credit if physical geology has been completed.
- GEOL 3035: FUNDAMENTALS OF EARTH SCIENCE***
Study of basic physical and chemical processes that form the ocean-atmospheric system. Natural and anthropogenic factors that affect global climate change are also studied. Suitable for non-majors.
- GEOL 3037: INTRODUCTION TO GEOGRAPHICAL INFORMATION SYSTEMS**
Fundamentals of Geographical Information System (GIS), including principles and products of GIS. Hardware, software, data and various applications are covered. Hands-on, in-class laboratories, using ArcView are an integral part of the course.
- GEOL 3137: MINERALOGY AND PETROLOGY**
Prerequisites: GEOL 3034 or equivalent and inorganic chemistry. Formation, identification and geologic and economic significance of minerals and igneous, metamorphic and sedimentary rocks. Laboratory exercises included.
- GEOL 3333: ENVIRONMENTAL GEOLOGY***
Relationships between human activities and the geological environment. Includes study of natural hazards, natural resources and waste disposal in the geologic environment. Suitable for non-majors.
- GEOL 3631: PHOTOGEOLOGY**
Prerequisites: GEOL 3034, 4234 and 4222. Application of aerial photography including shuttle, to the geologic environment.
- GEOL 4011: LABORATORY FOR EARTH SCIENCE***
Prerequisites: GEOL 3035, 4234, 4222. Laboratory exercises which investigate the principles of geology, oceanography, meteorology and astronomy.
- GEOL 4131: GEOLOGY OF TEXAS**
Prerequisite: GEOL 3034 or equivalent. Geological evolution of Texas including physiographic provinces, landforms and subsurface structure.
- GEOL 4222: LABORATORY FOR GEOMORPHOLOGY***
Corequisite: GEOL 4234. Laboratory exercises focusing on the identification and evolution of landforms along with concepts of geologic and topographic mapping.
- GEOL 4233: SOILS IN THE ENVIRONMENT**
Prerequisite: Chemistry. Study of the environmental aspects of soils including expansive soils, clay minerals, soil contamination and subsurface pathways for pollutants. Laboratory and fieldwork included.
- GEOL 4234: GEOMORPHOLOGY**
Prerequisite: GEOL 3034 or equivalent. Corequisite: GEOL 4222. Origin and evolution of landforms; geomorphic cycles, physiographic provinces, application of maps, aerial photographs and quantitative methods to geomorphology. Laboratory exercises included.
- GEOL 4235: SEDIMENTATION AND STRATIGRAPHY**
Prerequisite: GEOL 3034 or equivalent. Origins, depositional environments and internal structures of sedimentary rocks. Principles of stratigraphy and bio-stratigraphy, evolution of modern stratigraphic nomenclature. Fields trips required.
- GEOL 4236: OCEANOGRAPHY**
Prerequisite: GEOL 3035 or equivalent. The course emphasizes the application of geologic principles to the study of the marine environment and associated physical, chemical and biological processes. Topics covered include coastal processes, ocean resources, ocean management and human interaction with oceans.
- GEOL 4335: ADVANCED GIS**
Prerequisite: GEOL 3037 or equivalent. Course emphasizes project design, advanced query techniques and cartographic output. Topics covered include importing and exporting datasets and graphic files, data classification methods and geographic analysis.
- GEOL 4531: HYDROGEOLOGY**

Prerequisite: GEOL 3035 or equivalent. Comprehensive study of hydraulic characteristics of soil, rocks, aquifers, rivers and lakes with application to environmental and water resource planning concerns. Topics covered include hydrological cycles, aquifer testing, contaminant transports in various geological media, water resources management and others. Laboratory exercises included.

GEOL 4819, 4839: INDEPENDENT STUDY IN GEOLOGY

Prerequisites: Approval of instructor, chair and associate dean

GEOL 4931: SELECTED TOPICS IN GEOLOGY

Identified by specific title each time course is offered.

HEALTH

HLTH 3031: HEALTH, EMERGENCY CARE AND FIRST AID

Emergency care for victims of sudden illness or injury; etiology of accidents; current safety concerns and practices. Basic Red Cross and CPR competencies.

HLTH 3135: HEALTH PROMOTION PROGRAMS

The purposes, methods and objectives of health promotion programs in business and industry.

HLTH 3136: APPLIED KINESIOLOGY

The study of functional anatomy with relevance to the kinesiology of exercise, exercise movements and sports participation.

HLTH 3739: UNDERGRADUATE PRACTICUM

Prerequisites: Completion of or concurrent enrollment in HLTH 4031, 4032, 4034, 4035. Ten hours of supervised work experience each week in an approved exercise testing laboratory.

HLTH 4031: PHYSIOLOGY OF EXERCISE

Study of the physiological bases of exercise with emphasis on the adaptation of the systems of the body to stress.

HLTH 4032: BIOMECHANICS

Biomechanical analysis of human motion based on anatomical, physiological and mechanical principles. Role of mechanics in human performance and muscle-skeletal injuries.

HLTH 4033: NUTRITION, FITNESS AND WEIGHT CONTROL

Study of the relationship among nutrition, exercise and weight control and their role in health and performance. Techniques for dietary analysis.

HLTH 4034: PRINCIPLES OF PHYSICAL FITNESS

Role of exercise in the development of health and fitness. Techniques for exercise prescription, injury prevention, strength, cardiovascular endurance and flexibility. Laboratory participation required.

HLTH 4035: SEMINAR IN SPORTS MEDICINE

Approaches to injury prevention by conditioning and utilization of proper equipment. Diagnosis and rehabilitation of common sports injuries. Laboratory exercises required. (Crosslisted with HLTH 6032).

HLTH 4036: HEALTH PSYCHOLOGY

The biopsychosocial approach to health, illness and medical care with special attention given to health problems and issues having a major behavioral component including stress.

HLTH 4037: PEAK PERFORMANCE

How to improve performance by enhancing strength, flexibility, speed, power, agility and coordination. Varying content. May be repeated for credit with permission of instructor.

HLTH 4038: RESISTIVE EXERCISE: THEORY AND PRACTICE

Laboratory and lecture activities relating to appropriate training techniques for traditional, Olympic and rehabilitative strength exercises. The development of advanced periodization models.

HLTH 4334: WOMEN'S HEALTH

Survey of current issues in women's health and fitness using a life-span perspective. "Women's Studies Course."

HLTH 4739: INTERNSHIP

Prerequisites: Completion of or concurrent enrollment in HLTH 3739, 4031, 4032, 4034, 4035. Work-related learning experience in the application of exercise health promotion programs to teaching, clinical or research activities. Permission of instructor required.

HLTH 4839: INDEPENDENT STUDY IN HEALTH

Prerequisite: Approval of independent study director. Individual projects and activities in development of skills related to health.

HLTH 4931: SELECTED TOPICS IN HEALTH

Identified by specific title each time course is offered.

HEALTHCARE ADMINISTRATION

HADM 3131: FOUNDATIONS OF HEALTHCARE ADMINISTRATION LEADERSHIP

The administration of health care services and basic principles of organization for patient care including financial, manpower and systems development and control considerations in meeting health requirements at community, state, regional and national levels. This course is also an examination of leadership in healthcare administration.

HADM 3232: FINANCIAL DIMENSIONS OF HEALTHCARE ADMINISTRATION I

This course is designed to teach the student the ability to understand and analyze the financial performance of healthcare organizations and various techniques associated with financial decisions required in the operation of various healthcare entities. Also, the student shall learn the various aspects of finance which determines the financial results of a healthcare organization.

HADM 3333: HEALTHCARE ECONOMICS

- The purpose of this course is to familiarize students with the terminology and theory of health economics and to apply these tools to current issues in health policy and healthcare management. Emphasis will be placed on reading and analyzing recent articles in journals and newspapers that relate to health economics.
- HADM 3531: PHYSICIAN GROUP PRACTICE MANAGEMENT**
Prerequisite: HADM 3131 or equivalent. Acquaints the student with the management issues of physician group practice including insurance billing, personnel management, marketing, patient relations, financial management, venture planning, risk management, retirement planning, physician agreements, practice valuation, managed care, Medicare/Medicaid and legal/tax/professional liability.
- HADM 4132: HEALTHCARE PLANNING AND MARKETING**
Prerequisites: HADM 3131 and MKTG 3031, or equivalents. A review of concepts of planning and marketing and their application to the delivery of health care, assessment of community health needs and resources planning in an ambulatory or clinical environment.
- HADM 4133: HEALTH POLICY**
Analysis of health policymaking, health policy and contemporary issues in health policy with emphasis on the U.S.
- HADM 4136: MEDICAL REIMBURSEMENT**
Prerequisite: HADM 3131 or equivalent. Acquaints the student with medical terminology, procedure coding, diagnosis coding, medical management and documentation.
- HADM 4137: HEALTHCARE ETHICS, VALUES, AND SOCIAL RESPONSIBILITIES**
This course provides the student exposure to ethical issues in healthcare administration as well as business ethics, biomedical and research ethical issues, services to be offered, and distribution and allocation of resources. Additionally, this course will address important ethical issues and problems facing the U.S. health system.
- HADM 4138: MANAGED CARE**
Prerequisite: HADM 3131 or equivalent. Acquaints the student with managed care terminology, contracting for providers and payors, utilization review, case management, direct contracting, benefits structuring and organization structure.
- HADM 4236: HOSPITAL OPERATIONS**
Concepts and methods needed to operate in a hospital. It will also provide an understanding of the impact of licensing, regulation, finance and billing, supply, operation, the different professions, risk management, compliance, engineering and physical plant, and labor relations activities in healthcare institutions, with an emphasis on organization, effectiveness, productivity, and profitability.
- HADM 4332: LEGAL DIMENSIONS OF HEALTHCARE ADMINISTRATION**
Prerequisite: HADM 3531 or equivalent. Legal aspects of the doctor-patient-nurse-other health professional relationships; individual, corporate and institutional liability and responsibility.
- HADM 4431: HUMAN RESOURCES IN HEALTHCARE ADMINISTRATION**
Concepts and methods needed to plan, forecast, recruit, train, develop, maintain, and evaluate health manpower.
- HADM 4432: INTRODUCTION TO LONG TERM CARE ADMINISTRATION**
To develop an understanding of the Long-Term Care Industry by exploring industry trends, management strategies, governance and market influences and organizational development.
- HADM 4433: INTRODUCTION TO PUBLIC HEALTH**
Provides the student a comprehensive introduction to the essential concepts, values, principles, and practice of public health and the relationship of public health to the complex U.S. health care delivery system. Familiarizes the student with public health practice in a number of settings including government, private sector, and community organizations. Addresses important health issues and problems facing the US public health system.
- HADM 4531: FINANCIAL DIMENSIONS OF HEALTHCARE ADMINISTRATION II**
Prerequisites: FINC 3331 and HADM 3131, or equivalents. Analysis of the financial framework within which health care organizations and facilities operate; sources and flow of funds, cost information systems and capital budgeting.
- HADM 4739: INTERNSHIP IN HEALTHCARE ADMINISTRATION**
Prerequisites: HADM 4136 and approval of program director. Supervised field experience with an approved public or private health facility or physician clinic.
- HADM 4839: INDEPENDENT STUDIES IN HEALTHCARE ADMINISTRATION**
Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required. Independent directed study in Healthcare Administration.
- HADM 4931: SELECTED TOPICS IN HEALTHCARE ADMINISTRATION**
Identified by specific title each time course is offered.

HISTORY

*Pending Coordinating Board approval

Note: 1. Courses marked with (+) may be taken to satisfy the statutory American History requirement. 2. Art History courses are listed under ARTS.

- HIST 3230: ANCIENT WORLD**
Surveys the development of early civilizations from Mesopotamia and Egypt through Greece and the fall of Rome in the West.
- HIST 3231: ANCIENT GREECE**
A study of classical Greece with particular attention to cultural, social and political developments.
- HIST 3232: ANCIENT ROME**
Intellectual, social, political and cultural developments in the history of the ancient Roman Republic and Empire (c.300 B.C.E. to 476 C.E.).
- HIST 3331: MEDIEVAL EUROPE**
The birth and first flowering of a truly European civilization-urban society and an agricultural economy.
- HIST 3332: RENAISSANCE AND REFORMATION**
Economic, political, intellectual and religious developments in Europe from 1300 to 1600.

- HIST 3334: STUDIES IN NATIVE AMERICAN HISTORY**
History of indigenous peoples of the Americas from the fifteenth through the twentieth centuries, especially of the contacts between these people and European culture and societies and of their relations with colonial and national societies. Areas and cultures will vary; may be repeated for credit with permission of instructor.
- HIST+ 4033: STUDIES IN AFRICAN AMERICAN HISTORY**
Issues and developments in African American history from 1619 to present. Topics vary; may be repeated for credit with permission of instructor.
- HIST+ 4034: THE NEW SOUTH**
The legacy of Civil War and Reconstruction; the creation of a new regional identity between Redemption and World War I.
- HIST+ 4035: TEXAS AND THE BORDERLANDS**
Survey of the history of Texas and the southwestern borderlands from the beginning of European colonization to the present.
- HIST+ 4036: COLONIAL AMERICA**
Examines the genesis of American values by tracing the development of colonial institutions such as the family, the church, the school and slavery.
- HIST+ 4037: THE NEW AMERICAN NATION**
Emergence and development of a distinctly American society, politics and national identity.
- HIST+ 4038: ANTEBELLUM AMERICA**
A study of the United States from 1820 to 1860 with special emphasis on social and political developments.
- HIST+ 4039: THE U.S. WEST**
Survey of the West as both historical place and site of national myth from first contact between European and Native American peoples to present.
- HIST+ 4133: CIVIL WAR AND RECONSTRUCTION**
The experience of Americans from the 1840s to the 1870s; their attempts to reconcile sectional and national identities.
- HIST+ 4134: GROWTH OF INDUSTRIAL AMERICA**
Early growth of industrial capitalism and America's social and political response to it from the Civil War to World War I.
- HIST+ 4135: U.S., 1919-1945**
Focus on modernization of life in U.S. and survey of crises of Great Depression and World War II.
- HIST+ 4136: U.S. SINCE 1945**
Focus on U.S. Cold War political history and domestic upheavals of 1960s and 1970s.
- HIST 4137: STUDIES IN LATIN AMERICAN HISTORY**
Surveys important issues and regions in Latin America. Variable content. May be repeated for credit with permission of instructor.
- HIST 4138: INDIGENOUS AND COLONIAL LATIN AMERICA**
Examines history of Latin America during period of indigenous self-rule and colonial period.
- HIST 4139: MODERN LATIN AMERICA**
Survey of development of Latin America from 19th century to the present.
- HIST 4230: HISTORY OF MEXICO**
Survey of history of Mexico from Spanish conquest to the present.
- HIST+ 4234: U.S. LABOR HISTORY**
Major changes in the U.S. economy, production technology and social movements rooted in workplaces from 19th century to the present.
- HIST+ 4236: REEL AMERICA I**
Analysis of films and historical materials from the first half of the 20th century. Focus on cultural and social history; may include Women's Studies content.
- HIST+ 4237: REEL AMERICA II**
Analysis of films and historical material since 1945. Focus on cultural and social history. May include Women's Studies content.
- HIST+ 4238: WOMEN IN AMERICAN HISTORY**
The psychological, social and economic forces that contributed to the subordinate status of women in American society and an examination of the feminist response. "Women Studies Course."
- *HIST 4239: THE VIETNAM WAR IN FILM**
Examines the Vietnam War in US film. Consists of class discussion drawn from film, memoirs, popular culture and historical background. Traces intersection of fact and fiction, following the Vietnam War.
- HIST 4330: HISTORY OF FEMINISM**
A survey of the development of those reform movements and individuals who shaped the growth of feminism in the 19th and 20th century U.S. and the world. May focus on a particular aspect of historical feminism. "Women Studies Course." Topic may vary; may be repeated for credit with instructor's consent.
- HIST 4333: STUDIES IN NON-WESTERN HISTORY**
Surveys selected periods and areas in Asia, the Middle East or Africa. Variable content. May be repeated for credit with permission of instructor.
- HIST 4334: REVOLUTIONARY EUROPE**
The Scientific Revolution and Enlightenment tradition, the French and Industrial Revolutions; the birth of ideologies and state-building.
- HIST 4336: MODERN EUROPE**
An examination of the major developments within European culture, politics, society and thought since 1815.
- HIST 4338: MODERN BRITAIN**
Britain since the Industrial Revolution: the Empire, Victorian and twentieth century society.
- HIST 4339: HOLOCAUST: HISTORY, LITERATURE AND FILM**
Examination of Holocaust from historical, psychological and sociological perspectives.

- HIST 4438: WOMEN IN EUROPEAN HISTORY**
The psychological, social and economic forces that contributed to the subordinate status of women in European society and an examination of feminist response. "Women Studies Course."
- HIST 4832: WAR AND SOCIETY**
Explores nature of combat and home front during war and societal change and cultural remembrance afterward. Course may focus on single major war. Topics vary; may be repeated for credit with permission of instructor.
- HIST 4839: INDEPENDENT STUDY IN HISTORY**
Prerequisite: Approval of independent study director. Independent study in history.
- HIST 4931: SELECTED TOPICS IN HISTORY**
Identified by specific title each time course is offered.

HUMANITIES

- HUMN 3031: BASIC TEXTS IN WESTERN TRADITION I**
The synthesis and continuity of Biblical, Greek, Roman and Medieval European roots of Western culture to the Reformation, Hebrew Testament, Homer, Plato, Aristotle, Virgil, New Testament, St. Augustine, Dante, Aquinas, Luther and Calvin.
- HUMN 3033: BASIC TEXTS IN WESTERN TRADITION II**
Major dynamics of Western culture since the Renaissance. Reformation and the rise of science. Authors such as Galileo, Luther, Shakespeare, Voltaire, Darwin, Marx, Freud and Sartre.
- HUMN 3034: ARTS AND THE CHILD**
Exploration of visual art, theatre, music and dance as they relate to children's aesthetic growth.
- HUMN 3035: BASIC TEXTS III: NON-WESTERN TRADITION**
Touchstones of literature and art from non-western cultures such as those of Asia, Africa, the Middle East and Native America.
- HUMN 4038: INTRODUCTION TO WOMEN'S STUDIES**
General information on the wide range of issues related to the status of women. "Women's Studies Course."
(Crosslisted with PSYC 4038, SOCI 4038, WMST 4038).
- HUMN 4236: STUDIES IN FILM**
In-depth analysis of film texts from a topical, generic, historical or theoretical perspective. Topics vary. May be repeated for credit with permission of instructor.
- HUMN 4732: SEMINAR IN WOMEN'S STUDIES**
Prerequisite: Any previous Women's Studies course. An advanced course in Women's Studies, designed to acquaint the student with contemporary issues in feminist scholarship across the disciplines. (Crosslisted with HUMN 5732, PSYC 4732, PSYC 5732).
- HUMN 4739: INTERNSHIP**
A supervised onsite internship in an approved setting. Permission of instructor required.
- HUMN 4839: INDEPENDENT STUDY IN HUMANITIES**
Prerequisite: Approval of independent study director. Independent study in Humanities.
- HUMN 4915: COOPERATIVE EDUCATION**
Educational paid work assignment by a student in the field of his or her career interest and course of study. Academic supervision and a report required.
- HUMN 4931: SELECTED TOPICS IN HUMANITIES**
Identified by a specific title each time the course is offered.

INDUSTRIAL HYGIENE AND SAFETY

*Pending Coordinating Board approval

- INDH 3034: SAFETY, HEALTH AND LIABILITY IN SCHOOLS**
Safety and health principles and practice as applied to schools. Includes hazard recognition and control in field, laboratory and classroom environments, emergency response, regulations, guidelines and teacher liability. Science majors may use only as an unrestricted elective.
- INDH 3131: INDUSTRIAL HEALTH AND HYGIENE**
General review of industrial health. Basic principles of industrial hygiene investigation. Physical and chemical hazards in the industrial workplace. Workplace environmental control.
- INDH 3133: LABORATORY SAFETY**
Basic principles of industrial safety as applied to laboratory operations. Review and control of hazards associated with the industrial, academic, and research laboratories will be discussed. Laboratory safety concepts and safety program development will be presented.
- INDH 3332: PRINCIPLES OF PROFESSIONAL SAFETY**
Includes how to organize and administer effective safety programs. Looks at future trends for business and industry and what changes the safety professional must keep abreast of in economic, environmental, regulatory and technical advances affecting their field.
- INDH 3333: ENVIRONMENTAL SAFETY AND HEALTH**
Principles and concepts of environmental health and safety including essential information related to the recognition, evaluation and control of occupational and environmental hazards.
- INDH 3430: TECHNIQUES OF SAFETY ENGINEERING AND ANALYSIS**
Practical application of basic engineering skills in the identification, evaluation and control of industrial hazards. Emphasis is on effective solution to safety design and operational problems and application of the Safety Precedence Sequence in the selection of hazard control measures.
- INDH 4131: NOISE AND HEARING CONSERVATION**

Anatomy and physiology of the human ear; sound propagation and the mechanism of hearing loss; federal and state noise regulations; noise measurement and analysis; establishing a hearing conservation and noise control program in industry.

INDH 4133: INDUSTRIAL VENTILATION

General principles of ventilation, dilution ventilation, comfort ventilation; heat-cold stress control, hood design, air contaminant control; testing ventilation systems and industrial ventilation guidelines.

INDH 4134: PERSONAL PROTECTIVE EQUIPMENT

Basic design and use of commonly used protective equipment in industry with emphasis on respiratory protection principles including approaches to training and instruction for proper usage.

INDH 4135: INDUSTRIAL RADIOLOGICAL HEALTH

Non-calculus based presentation of the principles of ionizing radiation and non-ionizing intended to provide basic competency in radiation protection through an understanding of the nature, uses, health effects, measurement and control of radiation.

INDH 4136: SYSTEM SAFETY & ACCIDENT INVESTIGATION

The course handles applications of system safety techniques in the industrial work environment and accident investigation theory and practice. Review of loss control management concepts, risk management, S & H training acceptance of risk, identification and initiation of corrective actions, pre-accident planning, emergency response, collection of evidence, analysis of information, investigation, organization, management and report writing.

INDH 4231: ERGONOMICS, HUMAN FACTORS AND WORKSPACE DESIGN

Ergonomics. Use of biological and engineering principles to design a safe and efficient workplace environment including biomechanics, anthropometry, heat and cold stress, vibration, pressure, illumination, work station and tool design and the presentation of visual, auditory and other sensory forms of information.

INDH 4232: INDUSTRIAL HYGIENE SAMPLING AND ANALYSIS

Sampling and analysis for common occupational hazards including principles of calibration, laboratory and field management techniques. Laboratory included.

***INDH 4233: HAZARDOUS MATERIALS AND EMERGENCY MANAGEMENT**

This course studies hazardous material storage, handling, effects and use as well as the most effective ways to respond to hurricanes, terrorist attacks and/or hazmat spills. It provides information to students as to how to deal with officials, how to establish command & control, coordinate communications, evacuate people and perform clean up. The course also includes emergency management, preparedness, local, state and federal government emergency management; as well as disaster relief organizations.

***INDH 4234: FIRE SAFETY ENGINEERING**

This course studies fire science, causes, prevention, inspection, etc. This includes purpose; definition; fire prevention activities, extinguishment, detection, hazards, fire behavior, fire causes, types of construction including structural features, flame spread, occupancy and fire load; inspection techniques,; conducting inspections.

INDH 4333: CONSTRUCTION AND GENERAL INDUSTRY SAFETY

This covers safety and health principles in the construction and general industries as well as OSHA policies, procedures and standards. Special emphasis is placed on those areas that are most hazardous in construction and general industry.

INDH 4431: ADVANCED STUDIES IN INDUSTRIAL HYGIENE AND SAFETY

Prerequisites: 15 hours of upper-level credit. Approval of faculty advisor and associate dean. The selection, study and formal presentation of topics in Industrial Hygiene and Safety based on advanced field, laboratory, library research study, supervised work experience in an approved industrial firm or government agency or educational work assignments. Written and oral reports required.

INDH 4739: INTERNSHIP IN INDUSTRIAL HYGIENE AND SAFETY

Prerequisites: 15 hours of upper-level credit; Approval of faculty advisor and associate dean. Supervised work experience in an approved industrial firm or government agency. Written and oral reports required.

INDH 4839: INDEPENDENT STUDY IN INDUSTRIAL HYGIENE AND SAFETY

Prerequisites: Approval of instructor, chair and associate dean.

INDH 4915: COOPERATIVE EDUCATION WORK TERM

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education. Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description.)

INDH 4931: SELECTED TOPICS IN INDUSTRIAL HYGIENE AND SAFETY

Identified by specific title each time course is offered.

INFORMATION SYSTEMS ADMINISTRATION AND MANAGEMENT

ISAM 3033: INFORMATION SYSTEMS FOR MANAGEMENT

Fundamentals of information systems to assist management in the operation and control of complex organizations.

ISAM 3034: INTRODUCTION TO BUSINESS PROGRAMMING

The course is a study of fundamental programming concepts used in the design, development, and management of business application programs; it includes program design methodologies, control techniques, and the implementation of programs using a high-level, business-oriented language.

ISAM 3331: INTRODUCTION TO BUSINESS DATABASES

Prerequisite/co-requisite: ISAM 3033 or equivalent. Brief overview of database concepts (hierarchical, network, relational, normalization, etc.) used in the design of business databases; use, control, management and manipulation of simple business databases (such as sales, inventory, customer, employee, general ledger, etc.) with a database management system. Includes numerous hands-on class projects.

- ISAM 3332: APPLICATIONS PROGRAMMING WITH VISUAL BASIC**
This course is designed to allow students to learn how to develop windows applications using Microsoft's latest most popular programming language and server technologies. Microsoft's latest Visual Basic, ADO (ActiveX Data Objects) and Microsoft SQL Server are used to help students master the fundamentals required to create programs from scratch. This course will introduce students to the important Graphical User Interface Concepts and programming constructs (Windows Forms, Labels, Textboxes, Buttons, Mouse-Event Handling, Menus, ListBoxes, ComboBoxes, Control Structures, Procedures, Arrays and Exception Handling), object-oriented (Classes, Inheritance and Polymorphism) and Database connectivity features of Visual Basic.
- ISAM 4331: INTERNET APPLICATIONS IN BUSINESS**
The role of Internet, Intranets, and Internet tools in business; design and development of business-oriented Internet applications using HTML, scripting languages and HTML-based automated tools.
- ISAM 4332: ADVANCED INTERNET APPLICATIONS IN BUSINESS**
An advanced-level course on Internet applications development. It offers programming knowledge of the Web using latest tools and technologies. Topics include: client-side scripts, server-side scripts, Web forms processing, XML document processing, DTD and EHTML, ASP.NET and HTML controls, Web-Database applications, etc. The course is mainly focused on hands-on projects.
- ISAM 4632: ADVANCED BUSINESS DATABASES**
Prerequisite: ISAM 3331 or equivalent. Use, management and manipulation of advanced business databases (such as sales, inventory, customer, employee, general ledger, etc.) with a complex database management systems. Includes numerous hands-on class projects.
- ISAM 4635: ANALYSIS AND DESIGN OF BUSINESS SYSTEMS**
Prerequisite: ISAM 3331 or equivalent. Introduction to systems concepts, systems analysis and design techniques, methods used to analyze information systems requirements of business systems; methods used to design, evaluate and implement business systems. Includes numerous hands-on class projects.
- ISAM 4636: INTRODUCTION TO NETWORK MANAGEMENT**
Prerequisite: ISAM 3033 or equivalent or senior standing. Brief overview of network hardware, protocols and installation; management of network users and groups; use, installation, control and security of network-based business applications; management of network printing. Includes numerous hands-on class projects.
- ISAM 4637: ADVANCED NETWORK PROTOCOLS**
Prerequisite: ISAM 4636 or equivalent. This course covers network technology topics such as VLANs, trunking technologies, VLAN trunking protocols, link aggregation control protocols, spanning tree protocol; principles of address management using ARP, RARP, BOOTP and DHCP protocols; different routing protocols such as RIP and IGRP, EIGRP in vector distance category protocols and OSPF in link state protocols; application layer protocols such as HTTP, DNS, SMTP, POP, IMAP, SNMP, FTP and their implementations on Windows and Unix platforms; and computer network security topics such as VPNs, NAT/PAT and IPSEC. The course includes an extensive hands-on component.
- ISAM 4739: INTERNSHIP IN MANAGEMENT INFORMATION SYSTEMS**
Prerequisite: Bachelor's degree candidacy, completion of at least 18 hours of BS in MIS required computing courses, and approval of academic advisor, faculty chair and associate dean. Supervised work experience related to management information systems with an approved business, industrial firm, or governmental agency; written and oral reports as required.
- ISAM 4839: INDEPENDENT STUDIES IN INFORMATION SYSTEMS**
Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required. Independent directed study in Information Systems.
- ISAM 4931: SELECTED TOPICS IN INFORMATION SYSTEMS**
Identified by specific title each time course is offered.

INSTRUCTIONAL TECHNOLOGY

*For definition of "Basic computer literacy" go to <http://inst.cl.uh.edu> and look under Admissions tab/Computer Literacy Skills.

**Pending Coordinating Board approval

- INST 3133: SURVEY OF INSTRUCTIONAL TECHNOLOGIES**
Prerequisite: Basic computer literacy*. Combines hands-on lab assignments and discussions through a student-centered approach. Students work with faculty to identify technology-related learning requirements, learning strategies and assessment criteria based on students' prior skills and interests. Students gain experience in the application of productivity tools, educational software, presentation graphics, multimedia and telecommunication technologies.
- INST 4535: eLEARNING**
Prerequisite: Basic computer literacy*. Apply internet knowledge and skills to design and develop learning environments on the Internet. Apply current research-based strategies for effective Web-enhanced learning and the assessment of that learning. Demonstrate safe, legal and healthy use of the Internet.
- INST 4635: WEB DEVELOPMENT**
Prerequisite: Basic computer literacy*. Examines the design, development and distribution of electronic documents. Participants will learn the basic components of how Web documents are created, various design approaches for a variety of user-friendly tools for web page development, how to include eye-catching graphics, interactive multimedia components and sophisticated programming in a web page.
- INST 4839: INDEPENDENT STUDY IN INSTRUCTIONAL TECHNOLOGY**
Prerequisites: Approval of instructor and Associate Dean.
- INST 4931: SELECTED TOPICS IN INSTRUCTIONAL TECHNOLOGY**
Identified by title each time course is offered.

LEGAL STUDIES

- LEGL 3037: LEGAL WRITING AND APPELLATE PROCESS**
Prerequisite: LEGL 3531 is recommended. If a student has not completed LEGL 3531, they may be considered for enrollment in this course if they pass a qualifying exam given by the course instructor before enrolling in the course. Principles of legal drafting and case analysis; preparation of legal documents and the rules of appellate process.
- LEGL 3133: INTRODUCTION TO LAW AND THE AMERICAN LEGAL SYSTEM**
Overview of the American legal system and the structure of law and legal institutions in the United States.
- LEGL 3231: LOGIC**
An investigation of traditional approaches to correct and incorrect reasoning.
- LEGL 3432: AMERICAN SYSTEM OF TRIAL BY JURY**
This course provides an analysis of process of trial by jury from the initial examination of the jury panel through closing arguments. Emphasis will be placed on the preparation of a case to be tried in small claims court.
- LEGL 3517: INTERNET LEGAL RESEARCH**
This course concentrates on Web browsers and Web search and indexing tools and will focus on the content of primary and secondary materials on the Internet.
- LEGL 3531: LEGAL RESEARCH**
The law library, research, briefing and case preparation through the use of digests, encyclopedias and other research sources.
- LEGL 3533: INTRODUCTION TO THE TEXAS RULES OF CIVIL PROCEDURE**
This course will cover the rules of civil procedure that govern the drafting of the plaintiff's original petition through the drafting of discovery.
- LEGL 4532: FAMILY LAW AND PROCEDURE**
Study of the fundamental principles of the law of family relations, divorce, adoption, custody, marriage, juvenile, etc.; includes analysis of family law procedures, appropriate forms and pleadings.
- LEGL 4533: DISPUTE RESOLUTION**
Analysis of the various methods of resolving disputes between citizens outside the traditional adversarial system.
- LEGL 4534: PROPERTY TRANSACTIONS**
Study of the fundamental principles and procedures of law related to the acquisition, control and disposition of property.
- LEGL 4535: CRIMINAL LAW**
This course will deal with the substantive law of crime and punishment.
- LEGL 4536: TORTS**
Study of the principles of the law of torts focusing on learning the causes of action, the elements of each and how to recognize the causes of action given certain facts.
- LEGL 4537: CRIMINAL PROCEDURE**
This course will deal with the law of arrest through trial and conviction and the constitutional protection involved in the process.
- LEGL 4538: BUSINESS TRANSACTIONS**
Analysis of the fundamental principles and procedures related to incorporation, partnership, leases, contracts, bonding, negotiable instruments, sales, mortgage liens, insurance, bankruptcy, etc.
- LEGL 4539: ESTATE PLANNING AND ADMINISTRATION**
This course is designed to introduce the broad subject of estate planning including basic will preparation, and the drafting of statutory form powers of attorney, medical directives, and medical powers of attorney. The various forms of estate administration in Texas will be studied.
- LEGL 4631: TEXAS CONSUMER LAW**
An analysis of the principle consumer protection statues in Texas and related federal laws. Special emphasis will be placed on The Texas Deceptive Trade Practices Act.
- LEGL 4632: ELDER LAW**
This course will focus on a variety of legal issues related to the aging of America. The Texas law of guardianship will be reviewed in depth including the state specific certification requirements to become a registered professional guardian.
- LEGL 4633: INFORMATION AND DOCUMENT ASSEMBLY SYSTEMS FOR THE LEGAL ENVIRONMENT**
Fundamentals of the operation of document assembly programs using Pro-Doc.
- LEGL 4635: MOCK TRIAL**
Students enrolled in this course are required to prepare for and compete in the undergraduate Annual Intercollegiate Mock Trial Competition sponsored by the American Mock Trial Association.
- LEGL 4636: MOCK MEDIATION**
Students enrolled in this course are required to prepare for and compete in the undergraduate Annual Intercollegiate Mediation Tournament sponsored by the American Mock Trial Association.
- LEGL 4717; 4737: STATE BAR - CLE**
Students enrolled in this course must register for and attend at their own expense a State Bar of Texas sponsored or sanctioned continuing legal education program approved by the course instructor. Research and writing assignments must be completed following attendance at the approved CLE course.
- LEGL 4739: INTERNSHIP IN LEGAL STUDIES**
Prerequisite: Approval of faculty advisor and program director. Supervised field experience with an approved agency or office. Written and oral reports required.
- LEGL 4819; 4839: INDEPENDENT STUDIES IN LEGAL STUDIES**
(Variable credit, 1 or 3 semester hours.) Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required. Independent directed study in Legal Studies.
- LEGL 4931: SELECTED TOPICS IN LEGAL STUDIES**
Identified by specific title each time course is offered.
- LEGL 5131: LEGAL CONCEPTS FOR THE BUSINESS PROFESSIONAL**

This course examines the legal implications of business transactions and will be of particular value to students seeking degrees in accounting, finance and business. Explores legal issues emphasized by the AICPA and other national professional organizations.

- LEGL 5931: RESEARCH TOPICS IN LEGAL STUDIES**
Identified by specific title each time course is offered.

LITERACY, LANGUAGE AND LIBRARY SCIENCE

**Pending Coordinating Board approval

- LLLS 4131: SURVEY OF READING**
Theories and approaches to teaching reading from emergent to proficient reading including word recognition skills, phonemic awareness, vocabulary development, comprehension, materials and methods for structuring of reading programs.
- LLLS 4132: LITERACY ISSUES OF SECONDARY STUDENTS**
Theories and approaches for teaching reading in intermediate and high school. Field experiences required.
- LLLS 4133: CORRECTIVE AND REMEDIAL READING**
Prerequisites: Six hours of LLLS and concurrent enrollment in LLLS 4332. Study of neurophysiology and psychology in treating disabled readers, including dyslexia and related disorders. Evaluation of strategies of correction and remediation. Field experience s required.
- LLLS 4332: DIAGNOSTIC AND PRESCRIPTIVE READING**
Prerequisites: Six hours of LLLS and concurrent enrollment in LLLS 4133. Diagnostic evaluation of readers; remedial approaches to vocabulary, comprehension, word identification, phonemic awareness and fluency. Field experience s required.
- LLLS 4434: READING & WRITING FOR EC-6**
Application of theories and strategies for teaching the language arts for EC-6. Field experience s required.
- LLLS 4435: SURVEY OF CHILDREN'S LITERATURE**
Survey of literature for children focusing on titles appropriate for grades EC-8 students.
- LLLS 4436: TEACHING LANGUAGE ARTS IN THE 4-8 CLASSROOM**
Application of theories and strategies for teaching the language arts for 4-8 grade students. Field experiences required.
- LLLS 4437: MULTICULTURAL LITERATURE**
Survey of multicultural literature for children focusing on titles which reflect the diverse cultures and exceptionalities in the EC-8 classroom.
- LLLS 4531: READING IN CONTENT SUBJECTS**
Prerequisite: LLLS 4131 (only for candidates in any grade 4-8 program). Survey of current reading and writing development in content subjects. Students in any Grades 4-8 program must take LLLS 4131 prior to taking LLLS 4531.
- LLLS 4532: YOUNG ADULT LITERATURE AND READING**
Selection and use of literature for young adults, focusing on titles appropriate for students in grades 8-12.
- LLLS 4634: METHODS IN SECONDARY ENGLISH/LANGUAGE ARTS**
Prerequisite: Admission to Teacher Education. Implementation of instructional plans and teaching strategies. Review of current research, theories and exemplary practices of teaching secondary English/Language Arts. Field experiences required.
- LLLS 4739: PRACTICUM IN CLINICAL READING**
Prerequisites: 12 hours of Reading course work including LLLS 4133 and LLLS 4332 or equivalent and approval of instructor and Associate Dean. Practices of diagnosing reading difficulties, grouping techniques and clinical evaluations; 3 hours each week in a reading laboratory setting using selected materials and reading aids. Field experiences required.
- LLLS 4839: INDEPENDENT STUDY IN READING**
Prerequisites: Approval of instructor and Associate Dean.
- LLLS 4931: SELECTED TOPICS IN READING**
Identified by specific title each time course is offered.

LITERATURE

Please note: Additional writing courses are listed under COMMUNICATION.

- LITR 3334: MYTHOLOGY**
Great myths and their reworkings in literature.
- LITR 3631: SHAKESPEARE**
Shakespeare's major plays and their production in the theatre of the English Renaissance.
- LITR 3632: 16TH AND 17TH CENTURY ENGLISH LITERATURE**
Selections from writers such as Wyatt, Marlowe, Spenser, Jonson, Donne, Herrick, Crashaw, Vaughan, Milton and Marvell. (Shakespeare not included).
- LITR 3633: RESTORATION AND 18TH CENTURY LITERATURE**
Although mainly British, selections will be concentrated generically: poetic satire (Pope), comedy of manners (Congreve), lyric poetry (Smart), prose satire (Swift), biography (Boswell), novel (Richardson).
- LITR 3731: CREATIVE WRITING**
A practical seminar in writing fiction, poetry or drama. Some theory. Emphasis on critical discussion of participants' work.
- LITR 4031: PRINCIPLES OF COMPOSITION**
Advanced study of the principles of composition with emphasis on grammatical theory and analysis, discourse theory and the cognitive, rhetorical and linguistic aspects of writing; emphasis on recent developments in theory.
- LITR 4034: WORKSHOP IN POETICS**
The language, formal strategy and mechanical techniques of poetry. A practical sense of how poems work. Designed for teachers, readers and writers of poetry.

- LITR 4035: FILM AS LITERATURE**
Understanding films through the languages of film (shots, montage, framing, lighting, sound, genre, classical Hollywood and avant-garde). Film interpretation and critique.
- LITR 4130: LITERARY STUDIES: GENRES AND CRITICAL PERSPECTIVES**
Introduction to the close study of literary and dramatic texts and issues affecting interpretation.
- LITR 4131: LITERARY THEORY**
Prerequisite: LITR 4130. Theories about the nature of verbal art and the relationship between literature and reality.
- LITR 4132: MODERN AMERICAN AND ENGLISH POETRY**
Myth and epic, the personal poem, expressionism, neo-romanticism; such poets as Yeats, Auden, Stevens and Frost.
- LITR 4133: MODERN AND CONTEMPORARY DRAMA**
A century of national and international playwrights from Henrik Ibsen and Anton Chekhov to Sam Shepard and August Wilson; realism, symbolism, expressionism, theatre of the absurd.
- LITR 4134: THE MODERN NOVEL**
Major works of such novelists as Conrad, Joyce, Faulkner, Mann, Garcia-Marquez.
- LITR 4135: THE AMERICAN NOVEL**
Focus on development of form, style and theme in American fiction; major and lesser-known novelists over two centuries.
- LITR 4231: EARLY AMERICAN LITERATURE**
Multicultural voices of Native America, Spanish America and African America; early dominant cultures of Puritans and Founding Fathers; spoken traditions, cultural history and emergence of early modern literature.
- LITR 4232: THE AMERICAN RENAISSANCE**
The Transcendentalists, historical fiction, tragic critiques of America and poetry; writers such as Emerson, Thoreau, Cooper, Hawthorne, Melville, Poe and Whitman.
- LITR 4233: AMERICAN REALISM AND NATURALISM**
Literature of social observation and criticism, psychological realism, effect of social and natural science on literary form, literature of American folkways. Authors may include Twain, Wharton, Crane.
- LITR 4234: AMERICAN LITERATURE: MODERNISM**
Literary experimentation, avant-gardes, literature as expression of social and cultural dislocation or as search for order. Authors may include Eliot, Fitzgerald, Faulkner.
- LITR 4235: CONTEMPORARY AMERICAN LITERATURE**
Readings among the diverse writings of recent decades; topics addressed may include developments in traditional narrative, conformity and counter-culture, postmodernism, the re-imagining of ethnic, gender, or national identity. Authors may include Morrison, Pynchon and Rich.
- LITR 4236: THE ROMANTIC MOVEMENT IN ENGLISH LITERATURE**
The major romantic poets and novelists: Blake, Byron, Brontë, Scott and others.
- LITR 4237: VICTORIAN LITERATURE**
Major Victorian essayists and poets; literary responses to industrialization, empire and class struggle.
- LITR 4238: RISE AND DEVELOPMENT OF THE ENGLISH NOVEL**
Representative novelists from the last three centuries: Defoe to Dickens to D. H. Lawrence.
- LITR 4331: CONTEMPORARY POETRY**
Poetry in English after 1950, American or transnational focus; may include such figures as Lowell, Ginsberg, Rich, Heaney, Walcott.
- LITR 4332: AMERICAN MINORITY LITERATURE**
Classic and contemporary texts from America's ethnic and gender minorities: African Americans, Native Americans, Mexican Americans, women and others.
- LITR 4333: AMERICAN IMMIGRANT LITERATURE**
America's most fundamental narrative of immigration-the "American Dream" and its variations-told in voices from the Pilgrims through Jewish, European, Asian, Central American and Caribbean writers at turn of twentieth and twenty-first centuries.
- LITR 4435: MEDIEVAL LITERATURE**
Romance, lyric, fabliau, epic, play and story. Selections from such medieval masters as Dante, the Gawain, Tristan and Beowulf poets, Boccaccio and Chrétien de Troyes. Texts will be read in translation.
- LITR 4530: MASTERPIECES OF 19TH CENTURY EUROPEAN LITERATURE**
Revolutionary literary and philosophical works from 19th-century European tradition; includes such writers as Balzac, Flaubert, Nietzsche, Marx, Dostoevski, Austen, Dickens, Blake, Turgenev.
- LITR 4531: MASTERPIECES OF 20TH CENTURY EUROPEAN LITERATURE**
Important 20th-century works which address problems of modern existence, the citizen, the writer. Selections from such writers as Kafka, James, Woolf, Stevens, Freud, Proust, Conrad, Mann.
- LITR 4533: TRAGEDY**
The dimensions of tragic experience as expressed in Western literature.
- LITR 4534: COMEDY**
The comic view of the human predicament as seen in writers such as Aristophanes, Moliere, Wilde and others.
- LITR 4535: THE LITERATURE OF ADOLESCENCE**
Growing up: variance and continuity in depictions of adolescence by American and other writers.
- LITR 4537: WOMEN IN LITERATURE**
Heroines from Eve to Molly Bloom; literature constructs the female; emphasis on nineteenth and twentieth century works. "Women's Studies Course."
- LITR 4538: LITERATURE AND RELIGION**
Texts concerning spiritual journeys, religious passion and impact of belief on character. Religions may be western or non-western, world or folk. Genres may range from scriptures to novels, memoirs and poetry. Topics, texts and themes will vary. May be repeated for credit with permission of instructor.

- LITR 4631: CHAUCER**
The art of England's greatest narrative poet: Canterbury Tales, Troilus and Criseyde.
- LITR 4632: LITERATURE OF THE FUTURE**
Textual models for literature and human society of the future in a variety of genres, including science fiction, magic, realism, prophecy, postmodern literature and the history of science.
- LITR 4819, 4839: INDEPENDENT STUDY IN LITERATURE**
Prerequisite: Approval of independent study director. Independent Study in Literature. May be taken for 1 or 3 hours of credit.
- LITR 4931: SELECTED TOPICS IN LITERATURE**
Identified by specific title each time course is offered.

MANAGEMENT

- MGMT 3031: MANAGEMENT THEORY AND PRACTICE**
Management policies and processes including planning, organizing and controlling; overview of production and functions of organization theory and behavior.
- MGMT 3133: ORGANIZATIONAL COMMUNICATION**
Prerequisite: MGMT 3031 or equivalent. A study of theories and practices in organizational communication, dissemination of information in organizational settings, effectiveness, relative costs and feedback potential.
- MGMT 3331: HUMAN RESOURCE MANAGEMENT**
Prerequisite: MGMT 3031 or equivalent. Problems and practices in human resource management; selection, placement, evaluation, promotion and termination.
- MGMT 3431: HUMAN RESOURCE PLANNING, STAFFING AND SELECTION**
Prerequisite: MGMT 3331 or equivalent. Techniques for planning and recruiting human resource needs in the context of organizational requirements. Staffing and selection techniques and practice relative to legal concerns and labor market considerations.
- MGMT 3531: WAGE AND SALARY ADMINISTRATION**
Prerequisite: MGMT 3031 or equivalent. Job performance evaluation and development of compensation plans and programs.
- MGMT 4132: STRATEGIC MANAGEMENT**
Prerequisites: MGMT 3031, MKTG 3031, FINC 3331 and LAST SEMESTER. In addition, registration is restricted to students with an approved Candidate Plan of Study. The study of the formulation, implementation and assessment of strategic decisions.
- MGMT 4136: HUMAN RESOURCE MANAGEMENT INFORMATION SYSTEMS**
Principles and procedures and contemporary programs used in the development of information systems to aid human resource decision making.
- MGMT 4237: LEADERSHIP**
The course will examine and focus on proven executive leadership best practices across a range of complex organizations.
- MGMT 4332: ORGANIZATIONAL STRUCTURE AND PROCESS**
Prerequisite: MGMT 3031 or equivalent. Surveys theory and research on the structure of business organizations and processes affecting their management.
- MGMT 4333: COLLECTIVE BARGAINING IN THE PUBLIC SECTOR**
Prerequisite: MGMT 3031 or equivalent. Comparisons and contrasts of collective bargaining in the public and private sectors; the impact of unionization on public administration.
- MGMT 4431: LEADERSHIP IN A GLOBAL BUSINESS ENVIRONMENT**
The topic of leadership will be explored in the context of the global business environment.
- MGMT 4531: INDUSTRIAL LABOR RELATIONS**
Prerequisite: MGMT 3031 or equivalent. Collective bargaining processes in American industry; impact of labor management relations on wage and employment levels and on national income.
- MGMT 4533: INTERNATIONAL BUSINESS MANAGEMENT**
Prerequisite: MGMT 3031 or equivalent. Managerial considerations in international business operations; government involvement, organizational structure, operating policies and market peculiarities.
- MGMT 4534: ORGANIZATIONAL BEHAVIOR**
Prerequisite: MGMT 3031 or equivalent. Dynamics of organizational behavior in business, interpreted from a behavioral science perspective.
- MGMT 4535: SEMINAR IN INTERNATIONAL MANAGEMENT**
Field experience involving meetings with top management personnel of businesses operating outside the United States. Discussions will center on the economic, cultural, social, legal and other environmental constraints that affect firms in other countries.
- MGMT 4536: ORGANIZATIONAL DEVELOPMENT**
Prerequisite: MGMT 4534 or equivalent. Evaluation of change processes and development in organizations; behavioral methodology and the role of the change agent.
- MGMT 4537: GOVERNMENT BUDGET PLANNING AND ANALYSIS**
Application of management, accounting and finance principles to the preparation, analysis and implementation of government budgets; emphasis on state and local levels.
- MGMT 4731: SEMINAR ON THE SOCIAL RESPONSIBILITY OF BUSINESS**
Prerequisite: MGMT 3031 or equivalent. The changing role of business enterprise in society; influences of government regulatory agencies on social consciousness in the business world.
- MGMT 4739: INTERNSHIP IN MANAGEMENT**

Prerequisites: 15 hours of upper-level credit and approval of program director. Three or six hours of supervised work experience each week in an approved business or industrial firm.

MGMT 4819; 4839: INDEPENDENT STUDIES IN MANAGEMENT
(Variable credit, 1 or 3 semester hours.) Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required. Independent directed study in Management.

MGMT 4931: SELECTED TOPICS IN MANAGEMENT
Identified by specific title each time course is offered.

MARKETING

MKTG 3031: MARKETING: CREATING VALUE FOR CUSTOMERS
Prerequisite: Six semester hours of principles of economics or equivalent. Focus is on initiating, building and maintaining mutually beneficial relationships with customers through the strategic use of the marketing mix. Topics include marketing research, market segmentation and targeting, buyer behavior, product development, brand management, promotion, international marketing, e-marketing, and ethical marketing practices.

MKTG 3133: CHANNEL RELATIONSHIPS AND DYNAMICS
Prerequisite: MKTG 3031 or equivalent. Examination of the strategic role of distribution within the overall marketing strategy. Specific managerial and regulatory issues in designing and coordinating industrial distribution channels and channel relationships are discussed.

MKTG 3134: BUSINESS LOGISTICS
Prerequisite: MKTG 3031 or equivalent. An in-depth analysis of logistics and its role within the distribution strategy. The functional components such as inventory control, transportation, warehousing, purchasing, and supply chain management are examined.

MKTG 3331: INTEGRATED MARKETING COMMUNICATIONS
Prerequisite: MKTG 3031 or equivalent. Focus is on building relationships between brands and customers through the strategic use of the elements of the marketing communication mix, including advertising, sales promotion, direct marketing, personal selling and public relations.

MKTG 3332: PROFESSIONAL SELLING
Prerequisite: MKTG 3031 or equivalent. A study of the field of professional selling as an integral component of the promotional activities of the organization. Discussions focus on the selling of goods and services to organizational buyers in the context of long-term relationships.

MKTG 3531: MARKETING INTELLIGENCE AND DATA MANAGEMENT
Prerequisites: DSCI 3231 and MKTG 3031, or equivalents. Focus is on the use of market intelligence to provide marketing decision-makers with data on the effectiveness of the current marketing mix, direction for necessary changes, and insight into new opportunities in the marketplace.

MKTG 4131: SALES MANAGEMENT
Prerequisite: MKTG 3332 or equivalent. A study of the tasks of the sales manager including the organization, planning, operation and control of a field sales force. The course emphasizes managerial problem solving in business-to-business marketing.

MKTG 4332: BUSINESS SERVICES MARKETING
Prerequisite: MKTG 3031 or equivalent or permission of instructor for non-majors. Concepts and strategies in service industries which serve business and organizational customers. Examines the role of pricing, promotion, distribution, and product strategies in the business service sector.

MKTG 4333: ENTREPRENEURSHIP AND SMALL BUSINESS CONSULTING
Prerequisites: ACCT 3331, FINC 3331, MGMT 3031 and MKTG 3031. Application of classroom concepts, theories and principles from all business disciplines to active operating small businesses or new business ventures.

MKTG 4334: BUSINESS MARKETING STRATEGY
Prerequisites: MKTG 3531 or equivalent. Integrating marketing concepts such as purchasing, market segmentation and the 4 Ps and applying them to develop business-to-business marketing.

MKTG 4531: COMPARATIVE INTERNATIONAL MARKETING
Prerequisite: MKTG 3031 or equivalent. Begins with a discussion of incentives for and barriers to international trade, and foreign market selection and entry strategies. Examines product, price, distribution, and promotion decisions in an international context. Involves analysis and critique of the marketing strategies used by a multinational firm.

MKTG 4532: SEMINAR IN INTERNATIONAL MARKETING
Field experience involving meetings with the chief marketing officers of firms operating in areas outside the United States. Sessions will concentrate on marketing problems found in other cultures, the solutions used to address those problems and how these problems and solutions are different from the American experience.

MKTG 4739: INTERNSHIP IN MARKETING
Prerequisites: 15 hours of upper-level credit and approval of program director. Three or six hours of supervised work experience each week in an approved marketing unit.

MKTG 4819; 4839: INDEPENDENT STUDIES IN MARKETING
(variable credit, 1 or 3 semester hours.) Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required. Independent directed study in Marketing.

MKTG 4931: SELECTED TOPICS IN MARKETING
Identified by specific title each time course is offered.

MATHEMATICS

*Pending Coordinating Board approval

MATH 3031: MATHEMATICS FOR EC- 6 I

- Prerequisite: College Algebra. Introductory concepts from elementary mathematics. Included are: problem solving, set theory, an introduction to number systems and computation; basic probability and statistics, fundamentals of Euclidean Geometry including basic shapes, 2 dimensional coordinate systems, measurement and an introduction to number theory. No credit if credit received for Math 3033 or equivalent.
- MATH 3032: MATHEMATICS FOR EC- 6 II**
Prerequisite: Math 3031 or equivalent. Advanced concepts from elementary mathematics. Included are: problem solving; number bases; computational algorithms; the real number system; three dimensional geometry and measurement; 3D coordinate and transformational geometry; probability and statistics; and number theory. No credit if credit received for Math 3037 or equivalent.
- MATH 3033: STRUCTURE OF NUMBER SYSTEMS**
Structure of arithmetic for elementary teachers. A set-theory approach to development of the real number system; fundamental operations and concepts of arithmetic, systems of numeration. No credit if credit received for Math 3031 or equivalent.
- MATH 3034: ALGEBRA THROUGH TECHNOLOGY**
Prerequisite: College algebra. Using technology to investigate topics in elementary functions, simultaneous equations, polynomials and elementary topics in number theory.
- MATH 3035: EUCLIDIAN AND NON-EUCLIDIAN GEOMETRY**
Prerequisite: College algebra. Formal set theory, logical structure and measurement.
- MATH 3036: PROBLEM SOLVING**
Prerequisite: MATH 3037 or equivalent or instructor permission. Problem solving through experiences and reasoning; ideas from areas such as pattern recognition, simulation and logical deduction.
- MATH 3037: FUNDAMENTALS OF INFORMAL GEOMETRY AND STATISTICAL ANALYSIS**
Prerequisite: MATH 3033. Identification and measurement of plane and solid figure transformations and symmetry of geometric shapes; introduction to discrete probability; statistical analysis of data and methods of displaying information. No credit if credit received for Math 3032 or equivalent.
- MATH 3038: COMPUTATIONAL STATISTICS**
Prerequisite: College algebra or equivalent. Descriptive statistics, basic probability concepts, normal distribution, parameter estimation, testing of hypotheses, correlation and regression, statistical computation using Excel.
- MATH 3131: INTRODUCTION TO LINEAR ALGEBRA**
Prerequisite: Precalculus or Calculus I. Systems of linear equations; vector spaces, linear transformations, determinants, matrices, eigenvalues and eigenvectors; applications to coding and difference equations.
- MATH 3231: CALCULUS III**
Prerequisites: Calculus I, II and MATH 3131. Vectors and vector valued functions, functions of multiple variables, partial derivatives, multiple integrals, volume and surface area and vector calculus.
- MATH 3331: DISCRETE MATHEMATICS**
Prerequisite: College algebra. Logic, set theory, algebraic structures, graph theory and networks.
- MATH 3334: PROBABILITY AND STATISTICS FOR SCIENTISTS AND ENGINEERS**
Prerequisites: Calculus I, II. Graphical representation of data, measures of centrality and variability, concepts and rules of probability, discrete probability distribution, normal distribution, sampling distributions, central limit theorem, parameter estimation, testing of hypotheses, two sample methods, analysis of variance, correlation and regression analysis.
- MATH 4030: INTRODUCTION TO MODERN ALGEBRA AND NUMBER THEORY**
Prerequisite: Calculus II. An introduction to techniques of proof, problem solving and applications using topics from number theory, modern algebra and logic such as groups, rings, fields, congruence classes, modular arithmetic, symmetries, permutations and inductive and deductive argument forms.
- MATH 4031: HISTORY OF THE MATHEMATICAL SCIENCES**
Temporal relationships of concepts by means of biographic studies; development of mathematical theory and applications from ancient to contemporary times.
- MATH 4131: ORDINARY DIFFERENTIAL EQUATIONS AND APPLICATIONS**
Prerequisite: MATH 3231. Solutions of ordinary differential equations of first and second order, Laplace transforms, power series techniques, systems of equations, stability, numerical methods, geometric and physical applications.
- MATH 4132: NUMBER THEORY**
Prerequisites: Calculus and either MATH 3036 or MATH 3131. Properties of divisibility. Prime numbers, congruence arithmetic, quadratic reciprocity and applications of these ideas, an overview of techniques of mathematical proof.
- MATH 4133: INTRODUCTION TO TOPOLOGY**
Prerequisite: MATH 4331. Topological techniques in analysis, metric spaces, continuous transformations, connectivity, separation, compactness; nets and filters, cardinal arithmetic.
- MATH 4135: NUMERICAL ANALYSIS AND ITS APPLICATIONS**
Prerequisites: MATH 3131, MATH 3231, MATH 4131 and C/C++ or equivalent. Introduction to methods and algorithms in numerical computation. The topics include techniques for finding the roots of equations and interpolation functions, numerical approximation of differentiation and integration, numerical solutions to ordinary differential equations, linear systems and nonlinear systems.
- MATH 4136: MATHEMATICAL SOFTWARE APPLICATIONS**
Prerequisites: MATH 3131 and MATH 4131. Explores current applications of computers in mathematics using Mathematica. Symbolic, numerical and graphical computing will be applied to various mathematical problems normally viewed as beyond the scope of the course in which they are first introduced. A variety of programming paradigms, such as procedural programming and function programming will be emphasized.
- MATH 4231: PREDICATE LOGIC**
An introduction to predicate logic; elements of formal logic systems; set theory and propositional calculus, completeness theorems and the nature of proofs.
- MATH 4232: INTRODUCTION TO ABSTRACT ALGEBRA**

- Prerequisites: Calculus and MATH 3131. Study of algebraic structures: maps, operations, permutations and homomorphisms. Groups, rings, integral domains and fields; applications to symmetry; techniques of mathematical proof.
- MATH 4235: THEORY OF MODELS AND APPLICATIONS**
Prerequisites: MATH 3131 and MATH 4131 or equivalent. Simulation and analysis on continuous and discrete mathematical models in science. It also includes the study of nonlinear dynamics, chaos and fractals.
- *MATH 4236: INTRODUCTION TO SURVEY SAMPLING**
Prerequisite: One semester elementary statistics is preferred. An introduction to the design of sample surveys and the analysis of survey data. This course emphasizes practical applications of survey methodology. Sample designs covered include simple random sampling; systematic sampling; stratified, cluster and multi-stage sampling. Analytical methods include sample size determination, ratio and regression estimation and imputation for missing data. Practical problems encountered in conducting a survey are discussed.
- *MATH 4238: DATA MANAGEMENT AND ANALYSIS USING SAS**
Prerequisite: One semester elementary statistics course is preferred. An introduction to the statistical package SAS. The course will focus on data step programming and some selected base procedures. Topics include inputting and outputting data, processing and managing data, arrays, functions, custom outputs and some basic statistical procedures for analysis.
- MATH 4331: ADVANCED CALCULUS**
Prerequisite: MATH 3231 or equivalent. Set theory. Real number system. Sequences and series. Differentiation. The Riemann integral.
- MATH 4431: INTRODUCTION TO ANALYSIS**
Prerequisite: MATH 4331 or equivalent. Real numbers, sequences and series, differentiation and measure theory; Riemann, Stieltjes and Lebesgue integrals.
- MATH 4434: INTRODUCTION TO PROBABILITY**
Prerequisite: Calculus II. Sample space, probability function, combinatorics, discrete and continuous random variables, special probability distributions, moment generating function, multivariate distribution and central limit theorem.
- MATH 4435: INTRODUCTION TO STATISTICS**
Prerequisite: MATH 4434 or equivalent. Sampling distributions, point and interval estimation, hypothesis testing, regression and correlation, nonparametric statistics, analysis of variance.
- *MATH 4436: PROBABILITY FOR ACTUARIAL EXAM P1**
Prerequisite: One semester probability course is preferred. This course is designed to prepare students for the first actuarial exam. This course consists of introducing, reviewing concepts and rules of probability and statistics and studying sample actuarial examinations and related material. Students are given sample problems from past actuarial examinations to study outside of class. The solution of these problems and related material are discussed in class.
- MATH 4633: FUNCTIONS OF A COMPLEX VARIABLE**
Prerequisite: MATH 3231 or equivalent. The theory of limits, differentiation and integration in the complex plane. Gauss' theorem and residue calculations.
- MATH 4819, 4839: INDEPENDENT STUDY IN MATHEMATICS**
Prerequisites: Approval of instructor, chair and associate dean.
- MATH 4931: SELECTED TOPICS IN MATHEMATICS**
Identified by specific title each time course is offered.

MILITARY SCIENCE

- MSCI 3310; 3320: ADVANCED MILITARY SCIENCE**
Prerequisite: MSCI 2220 or consent of the chair. Leadership; preparing combat orders; military instruction principles; small unit tactics; tactical communications; fitness training. Class is designed to prepare students for Advanced Camp. Fitness training required three times per week in addition to class and lab.
- MSCI 3398: SPECIAL PROBLEMS**
Prerequisites: junior standing and consent of department chair.
- MSCI 3491: LEADERSHIP DEVELOPMENT AND ASSESSMENT Course**
Prerequisite: MSCI 3320 or consent of the chair. Off-campus field training practicum stressing application of leadership management with emphasis on tactical and special military skills. Places students in demanding and stressful leadership situations.
- MSCI 4310; 4320: ADVANCED MILITARY SCIENCE**
Prerequisite: MSCI 3320 or consent of the chair. Leadership and command; military law; administration/staff operations and procedures; dynamics of the military team; training management; ethics and professionalism. Fitness training required three times per week in addition to class and lab.
- MSCI 4398: SPECIAL PROBLEMS**
Prerequisites: senior standing and consent of department chair.

PHILOSOPHY

- PHIL 3231: LOGIC**
An investigation of traditional approaches to correct and incorrect reasoning. The application of logic to our "everyday world" is an integral part of the course.
- PHIL 3331: ETHICS**
A primary course in assessing ethical questions, judgments and systems of morality. Readings will address contemporary ethical issues.
- PHIL 3433: PHILOSOPHY AND KNOWLEDGE**
Historical approach to the theory of knowledge (epistemology). Issues addressed include skepticism, the role of sense perception and the justification of knowledge claims. Readings include works by Plato, Descartes, Hume and Kant.
- PHIL 4134: THE GREAT PHILOSOPHERS I**

- PHIL 4135: **THE GREAT PHILOSOPHERS II**
Survey of the ideas of the great philosophers of the western tradition from ancient Greece through the middle ages.
- PHIL 4232: **PHILOSOPHY OF RELIGION**
Survey of the ideas of the great philosophers of the modern western world.
Investigation of the responses of philosophers and theologians to questions about the nature of God and the problem of evil.
- PHIL 4839: **INDEPENDENT STUDY IN PHILOSOPHY**
Prerequisite: Approval of independent study director. Independent study in Philosophy.
- PHIL 4931: **SELECTED TOPICS IN PHILOSOPHY**
Identified by specific title each time course is offered.

PHYSICS

*Pending Coordinating Board approval

- PHYS 3011: **LABORATORY FOR UNIVERSITY PHYSICS I**
Corequisite: PHYS 3031. Introduction to data acquisition and analysis in physics. Apparatuses will be used to conduct experiments involving statics, kinematics, wave motion, sound and heat. Topics also to include statistical methods, graphing, error analysis, computer techniques and reporting results.
- PHYS 3012: **LABORATORY FOR UNIVERSITY PHYSICS II**
Corequisite: PHYS 3032. Instrumentation will be used to conduct experiments on electrical circuits and optics. Topics include Ohm's Law, series and parallel circuits, electrical power EMF, RLC Components, optical elements and visual phenomena.
- PHYS 3013: **LABORATORY FOR MODERN PHYSICS**
Corequisite: PHYS 3033. This course provides students with the exposure to modern physics phenomena and a variety of experimental techniques which develops a broad background essential for the future understanding of and the performance of research in physics. It includes experimental testing of quantum mechanics and its applications to atomic physics and light.
- PHYS 3031: **UNIVERSITY PHYSICS I**
Prerequisites: Differential and integral calculus. Corequisite: PHYS 3011. Calculus-based introductory Physics course. Primarily includes fundamentals of mechanics, such as statics, kinematics, Newton's laws, conservation of energy, rigid body motion, fluids; temperature, heat transfer, thermodynamics; vibrations, waves mechanics and sound waves.
- PHYS 3032: **UNIVERSITY PHYSICS II**
Prerequisite: PHYS 3031 or equivalent. Corequisite: PHYS 3012. Topics include: Electric forces and fields, DC and AC circuits, magnetism; atomic structure, semiconductors; electromagnetic waves, light; introduction to modern physics.
- PHYS 3033: **MODERN PHYSICS**
Prerequisite: PHYS 3032 or equivalent. Corequisite: PHYS 3013. An introduction to topics in modern physics. Black-body radiation, quantum mechanics, atomic and molecular physics, solid state physics, special relativity, nuclear and particle physics.
- PHYS 4011: **LAB METHODS IN THE PHYSICAL SCIENCES**
Corequisite: PHYS 4031. Three laboratory hours per week.
- PHYS 4031: **METHODS IN THE PHYSICAL SCIENCES**
Corequisite: PHYS 4011. Recent developments in chemistry, geology and physics; emphasis on teaching the physical sciences from a contemporary viewpoint.
- PHYS 4131: **MATHEMATICAL METHODS FOR PHYSICISTS I**
Prerequisites: Differential and Integral Calculus. Overview of the essential mathematics needed for advanced Physics courses including: Vector Analysis in flat and curved coordinates, Matrices, Group Theory, Infinite Series, Complex Variables and Differential Equations.
- PHYS 4132: **MATHEMATICAL METHODS FOR PHYSICISTS II**
Prerequisite: PHYS 4131 or equivalent. A continuation of Mathematical Methods for Physicists I including such topics as Special Functions, Legendre Polynomials, Bessel Functions, Fourier Series, Integral Transforms, Partial Differential Equations, Probability and Calculus of Variations.
- *PHYS 4231: **INTERMEDIATE MECHANICS**
Prerequisites: PHYS 3033 or equivalent. This course is an advanced undergraduate study of the classical motion of particles according to Newton's Theory. In this course we study Rectilinear motion, Oscillations, Noninertial Reference Systems, Central Forces, Systems of Particles and Rigid Body Motion.
- PHYS 4331: **PRINCIPLES OF ELECTROMAGNETISM**
Prerequisite: PHYS 3033 or equivalent. A thorough introduction to electrostatics, magnetostatics and electrodynamics. Practical examples and some demonstration experiments will be used to connect the elegant mathematical theory of electromagnetism with physical intuition.
- *PHYS 4333: **SPECIAL RELATIVITY**
Prerequisites: PHYS 4331 or Instructor approval. In this course we derive Einstein's theory of special relativity, Lorentz transformations and relativistic electrodynamics using tensor analysis and spacetime diagrams.
- PHYS 4432: **PRINCIPLES OF QUANTUM MECHANICS**
Prerequisite: PHYS 3033 or equivalent. Experimental basis of quantum theory. Postulates of quantum mechanics. Uncertainty principle. Operator methods and the wave equation, Time-independent Schrodinger equation, Wave-equation in three dimensions, Angular momentum and the Hydrogen atom.
- PHYS 4531: **THERMODYNAMICS & FLUID MECHANICS**
Prerequisite: PHYS 3033 or equivalent. Temperature, heat and work, thermodynamic properties of gases, solids and solutions; homogeneous and heterogeneous equilibria; thermodynamics of electrochemical cells; statistical thermodynamics; calculation of thermodynamic properties; chemical kinetics.
- PHYS 4732: **MODERN PHYSICS RESEARCH SEMINAR**

PHYS 4819, 4839: INDEPENDENT STUDY IN PHYSICS
A study of current physics research projects conducted in the format of a seminar class.

PHYS 4931: SELECTED TOPICS IN PHYSICS
Prerequisites: Approval of instructor, chair and associate dean.

Identified by specific title each time course is offered.

POLITICAL SCIENCE

POLS 3033: PUBLIC PERSONNEL ADMINISTRATION
An analysis of the institutions, practices and politics of American public personnel management.

POLS 3331: LEGISLATIVE PROCESS
Functions of the United States Congress and the Texas Legislature; legislative relationships with other sectors of government.

POLS 3532: POLICYMAKING PROCESS
The politics and processes of federal government public policy formation.

POLS 4133: CIVIL LIBERTIES IN AMERICA
Factors and forces that have altered the scope of civil liberties in the U.S.; history and analysis.

POLS 4134: CHIEF EXECUTIVE
Constitutional, political and administrative responsibilities of chief executives in government in comparison to the President of the United States.

POLS 4135: JUDICIAL PROCESS
The role of law, lawyers and judges in influencing social and political change in America; history and analyses.

POLS 4136: POLITICAL BEHAVIOR
An analysis of individual and mass political behavior in the American political system.

POLS 4531: PUBLIC ADMINISTRATION
Concepts of control, productivity and organizational design and structure; human behavior in organizations; administrative responsibility.

POLS 4532: GOVERNMENT BUDGET PLANNING AND ANALYSIS
Application of accounting and finance principles to the preparation and analysis of government budgets; emphasis on state and local levels.

POLS 4534: COMPARATIVE POLITICAL SYSTEMS
Prerequisites: POLS 4531, or equivalent. Planning outcomes of government action in countries other than the U.S.; implementation analysis; instruments for political participation.

POLS 4535: POLITICAL PHILOSOPHY
This course provides a frame of reference for classifying and assessing the merits of individual political theories in terms of their philosophical foundation.

POLS 4839: INDEPENDENT STUDIES IN POLITICAL SCIENCE
Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required. Independent directed study in Political Science.

POLS 4931: SELECTED TOPICS IN POLITICAL SCIENCE
Identified by specific title each time course is offered.

PSYCHOLOGY

*Pending Coordinating Board approval

***PSYC 3011: CAREERS IN PSYCHOLOGY**
This course introduces students to undergraduate psychology major, provides basic advising, cover careers in psychology and prepares students for applying to graduate school or jobs in psychology.

***PSYC 3012: WRITING IN PSYCHOLOGY**
Introduction to APA style and writing for the social sciences. Psychology majors should take this course during their first year.

PSYC 3135: PSYCHOLOGICAL THINKING
Prerequisite: Introductory Psychology course. Focuses on gaining skills necessary to understand and critique issues and research from a psychological perspective. Emphasis will be on critical thinking, expression of ideas, APA style and journal reading.

PSYC 3231: LEARNING
Prerequisite: Introduction to General Psychology. Basic principles of learning and how they apply to human behavior.

PSYC 3331: THEORIES OF PERSONALITY
Theories of the origins, structure and dynamics of personality; emphasis on the "normal" personality.

PSYC 3332: FAMILY PSYCHOLOGY
Overview of family psychology. Topics include family systems, family health, the family life cycle and family violence.

PSYC 3333: HUMAN SEXUALITY
This course will explore psychological, biological and cultural viewpoints on sexual behavior, including research on attraction, gender, sexual dysfunction, sexual variations, sexual orientation and sexual coercion.

PSYC 3334: DRUGS AND BEHAVIOR
Mechanisms and effects of alcohol, opiates, sedatives, tranquilizers, stimulants, psychedelics and other psychotropic drugs; problems of abuse and attempts at control and education.

PSYC 3335: BEHAVIORAL PHARMACOLOGY RESEARCH
Prerequisite: Permission of instructor. Laboratory investigation of drug/brain/behavior relationships in the rat. Readings from primary research literature, laboratory experiments and research reports.

PSYC 3336: BEHAVIORAL NEUROSCIENCE RESEARCH

- Prerequisite: Permission of instructor. Laboratory investigation of brain/behavior relationships in the rat. Readings from primary research literature, laboratory experiments and research reports.
- PSYC 4032: INTERVIEWING AND ASSESSMENT**
The provision of human services is covered in this course, e.g. intake, rapport building, goal-setting, implementation and evaluation. Multicultural sensitivity and ethics are also covered.
- PSYC 4038: INTRODUCTION TO WOMEN'S STUDIES**
General information on the wide range of issues related to the status of women. "Women Studies Course." (Crosslisted with HUMN 4038, SOCI 4038, WMST 4038).
- *PSYC 4111: PSYCHOLOGY CAPSTONE**
Prerequisite: Completion of at least 18 hours in Psychology. The course is intended to be an integrative capstone experience for psychology majors. Students will write 15-20 page paper using APA style, integrating material from at least 3 core courses.
- PSYC 4131: SOCIAL PSYCHOLOGY**
Attitudes, social cognition, person perception, self, social influence, relationships, prejudice, helping and aggression. Theories, research and application.
- PSYC 4132: INTRODUCTION TO MARRIAGE AND FAMILY THERAPY**
Introduction to the practice of marriage and family therapy. History of the field. Systems and contextual theory. Major theories and practices. Professional ethics.
- PSYC 4133: TESTS AND MEASUREMENTS**
Informal and standardized tests of achievement, intelligence, adjustment and aptitude.
- PSYC 4134: CHILD PSYCHOLOGY**
Cognitive, social and emotional development of children; psychoanalysis, behavioristic and Piagetian approaches.
- PSYC 4135: ADOLESCENT PSYCHOLOGY**
Problems of role and identity in relation to adolescents' needs for acceptance, autonomy and intimacy; special attention will be given to topics such as sexual maturation, love and friendship and drug abuse.
- PSYC 4136: BRAIN AND BEHAVIOR**
The biological basis of how one thinks, feels and acts.
- PSYC 4137: TRAUMA AND RESILIENCE**
Theories and data concerning psychological response to traumatic events, resilience and recovery. Developmental, institutional and ethno-cultural factors also examined.
- *PSYC 4217: PRACTICUM IN APPLIED BEHAVIOR ANALYSIS**
Prerequisite: Permission of instructor. Supervised application of behavioral principles and methods in community settings.
- *PSYC 4227: PRACTICUM IN APPLIED BEHAVIOR ANALYSIS**
Prerequisite: Permission of instructor. Supervised application of behavioral principles and methods in community settings.
- *PSYC 4231: APPLIED BEHAVIOR ANALYSIS I**
Prerequisite: PSYC 3231 or permission of instructor. Introduction to single-subject research design, the use of learning principles in applied areas, and ethical issues in behavior analysis.
- *PSYC 4232: APPLIED BEHAVIOR ANALYSIS II**
Prerequisites: Applied Behavior Analysis I or permission of instructor. The use of learning principles in applied areas, such as education, business, health, and human services, and ethical issues in behavior analysis.
- PSYC 4234: BEHAVIOR IN ORGANIZATIONS**
Social psychology of organizational behavior, focusing on issues of roles, power, commitment, membership and bureaucracy.
- *PSYC 4237: PRACTICUM APPLIED BEHAVIOR ANALYSIS**
Prerequisite: Permission of instructor. Supervised application of behavioral principles and methods in community settings.
- PSYC 4332: INTRODUCTION TO INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY**
Overview of the issues, problems and practices in industrial/organizational psychology. Topics include work group dynamics, attitudes, job analysis, employee selection, performance appraisal, training and organizational development.
- PSYC 4334: PSYCHOLOGY OF WOMEN**
The development of sex differences and sex roles; modern viewpoints on gender appropriate behavior. "Women Studies Course."
- *PSYC 4431: USER CENTERED DESIGN**
Covers how users should be included in design process including needs analysis, requirements writing, iterative testing of low/medium/high fidelity prototypes, implementation of requirements and evaluation.
- PSYC 4433: PUBLIC SERVICE MANAGEMENT**
Overview of basic theories of administrative organization, relationships and behavior. How to structure, manage, direct and control units within governmental organizations.
- PSYC 4434: PUBLIC SERVICE LEADERSHIP**
Examination of determinants and consequences of effective and ineffective leadership in governmental organizations.
- PSYC 4435: STRATEGIC PLANNING**
Strategic planning and facilitation of organizational change in governmental organizations.
- PSYC 4436: ORGANIZATIONAL COMMUNICATION**
Examination of general communication processes and dynamics within governmental organizations.
- PSYC 4437: VIOLENCE AGAINST WOMEN**
Global perspectives of violence against women by men. Topics include rape, sexual abuse, incest, female genital mutilation, battering, sexual slavery, sexual harassment.

- PSYC 4531: ABNORMAL PSYCHOLOGY**
Neurotic and psychotic personality patterns; etiology, symptoms, diagnosis and correctional methods and institutions viewed from a psychological perspective.
- PSYC 4536: THE AGING EXPERIENCE**
Examines cross-cultural differences, retirement, generational issues, death and dying and political and social implications of the aging experience for today's and tomorrow's elderly. (Crosslisted with SOCI 4536).
- PSYC 4631: RESEARCH DESIGN AND STATISTICAL MEASUREMENT I**
Design, analysis and application of social science research techniques and methods of measurement. (Crosslisted with SOCI 4631).
- PSYC 4632: RESEARCH DESIGN AND STATISTICAL MEASUREMENT II**
Prerequisite: PSYC 4631. Design analysis and application of social sciences research techniques and methods of measurement. (Crosslisted with SOCI 4632).
- PSYC 4661: RESEARCH DESIGN AND STATISTICAL MEASUREMENT**
Design, analysis and application of social science research techniques and methods of measurement. (Crosslisted with SOCI 4061).
- PSYC 4730: BEHAVIORAL STATISTICS**
Permutations and combinations, probability, hypothesis testing, sample theory, parameter estimation, frequency functions and correlation and regression. Applications in the Behavioral Sciences.
- PSYC 4731: SOCIAL SCIENCES RESEARCH TECHNIQUES**
Analysis and application of social science research techniques.
- PSYC 4732: SEMINAR IN WOMEN'S STUDIES**
Prerequisite: Any previous Women's Studies course. An advanced course in Women's Studies, designed to acquaint the student with contemporary issues in feminist scholarship across the disciplines. (Crosslisted with HUMN 4732, HUMN 5732, PSYC 5732).
- PSYC 4735: PERSONAL STRESS MANAGEMENT**
Course will explore various methodologies for stress management emphasizing personal applications.
- PSYC 4739: INTERNSHIP IN HUMAN SERVICES**
Prerequisites: Permission of instructor. Students will do a one-semester placement in a Human Services agency. (Crosslisted with SOCI 4739).
- PSYC 4819, 4839: INDEPENDENT STUDY IN PSYCHOLOGY**
Prerequisite: Approval of advisor and independent study director required. Independent study in psychology.
- PSYC 4832: COGNITIVE PSYCHOLOGY**
An empirical and theoretical examination of human cognitive processes. Possible topics include perception, memory, problem solving and artificial intelligence.
- PSYC 4835: CONSCIOUSNESS AND SPIRITUALITY**
The nature of human consciousness and spirituality. Topics include altered states of awareness, non-drug induced, non-ordinary realities and the role of spirituality in psychological healing.
- PSYC 4911: SELECTED TOPICS IN PSYCHOLOGY**
Identified by specific title each time course is offered.
- PSYC 4931: SELECTED TOPICS IN PSYCHOLOGY**
Identified by specific title each time course is offered.

SOCIAL WORK

- SWRK 4031: INTRODUCTION TO SOCIAL WORK**
Overview of field of social work, including history, philosophy, values, roles, fields of practice and settings for professional social work practice. Students required to complete 40 hour volunteer placement.
- SWRK 4034: ISSUES AND ETHICS IN SOCIAL WORK**
Examination of professional values and behaviors specific to social work as set forth in NASW Code of Ethics and various other codes of ethics for social work professionals.
- SWRK 4038: FOUNDATIONS OF SOCIAL WORK PRACTICE**
Covers provision of human services e.g., intake, assessment, rapport building, goal-setting, implementation and evaluation. Multicultural responsiveness and ethics are also covered.
- SWRK 4134: DIVERSITY AND HUMAN DEVELOPMENT THROUGHOUT THE LIFE CYCLE**
Overview of theories and knowledge related to human behavior, growth and development throughout life cycle with particular attention to human diversity.
- SWRK 4137: SOCIAL WELFARE POLICY AND SERVICES**
Provides knowledge of social welfare and policies and the impact of policy on client systems of all sizes.
- SWRK 4138: SOCIAL WORK PRACTICE I**
Introduction to theories, skills, values and techniques for social work assessment, intervention and practice evaluation with individuals, with particular attention to human diversity and multicultural responsiveness.
- SWRK 4139: SOCIAL WELFARE POLICY ANALYSIS**
Examination of social welfare policy perspectives, models of policy analysis and contemporary social service/welfare policies.
- SWRK 4169: SOCIAL WORK INTERNSHIP I**
Prerequisites: SWRK 4031, 4034, 4134, 4138, 4234, 4238, 4633, 4730 and 4931. First of two concurrent 240-hour generalist social work practice field placements. Course includes an on-campus Integrative Seminar. Students must have applied for and been accepted into a field placement with the Social Work program in order to register for this course.
- SWRK 4234: OPPRESSION, DIVERSITY AND SOCIAL JUSTICE**
Overview of theories and knowledge related to social, cultural and systemic influences on human behavior with particular attention to social and economic justice and persons and groups most affected by oppression.

- SWRK 4238: SOCIAL WORK PRACTICE II**
Prerequisite: SOCI 4138. Introduction to theories, skills, values and techniques for social work assessment, intervention and practice evaluation with groups and families, with particular attention to human diversity and multicultural responsiveness.
- SWRK 4269: SOCIAL WORK INTERNSHIP II**
Prerequisites: All core social work courses and completion of /or concurrent enrollment in SWRK 4169. Second of two concurrent 240-hour generalist social work practice field placements. Course includes an on-campus Integrative Seminar.
- SWRK 4338: SOCIAL WORK PRACTICE III**
Prerequisite: SWRK 4138 and 4238. Introduction to theories, skills, values and techniques for social work assessment, intervention, planned change and practice evaluation with communities and organizations.
- SWRK 4631: RESEARCH DESIGN AND STATISTICAL MEASUREMENT I**
Design, analysis and application of social science research techniques and methods of measurement.
- SWRK 4632: RESEARCH DESIGN AND STATISTICAL MEASUREMENT II**
Prerequisite: SWRK 4631. Design, analysis and application of social science research techniques and methods of measurement.
- SWRK 4633: RESEARCH METHODS**
Design and application of quantitative and qualitative research methods.
- SWRK 4634: DATA ANALYSIS**
Analysis and application of quantitative and qualitative social science research techniques and methods of measurement.
- SWRK 4730: BEHAVIORAL STATISTICS**
Permutations and combinations, probability, hypotheses testing, sample theory, parameter estimation, frequency functions and correlation and regression. Applications in the Behavioral Sciences.
- SWRK 4839: INDEPENDENT STUDY IN SOCIAL WORK**
Prerequisite: Approval of advisor and independent study director. Independent study in social work.
- SWRK 4931: SELECTED TOPICS IN SOCIAL WORK**
Identified by specific title each time course is offered.

SOCIOLOGY

- SOCI 3132: CRIMINOLOGY**
Theories of causation, patterns and social response. (Crosslisted with CRIM 3132).
- SOCI 3135: SOCIOLOGICAL THINKING**
Focus on skills for understanding and critiquing issues and research from a Sociological perspective. Emphasis on critical thinking and close examination of the social world. ASA style and journal reading.
- SOCI 3335: DEVIANCE**
Theories of the existence of deviance in society; management of spoiled identities. (Crosslisted with CRIM 3335).
- SOCI 3531: POLITICAL SOCIOLOGY**
The social bases of power; strategies for developing political influence; focus of power in America; relations between citizens and authorities; problems of political legitimacy.
- SOCI 3532: URBAN SOCIOLOGY**
The social organization of urban life and the structure of power in communities; urban problems and strategies for change.
- SOCI 4033: HUMAN SERVICES**
Overview of human services. Includes historical basis, current perspectives, casework terms and institutions.
- SOCI 4034: PROFESSIONAL ISSUES IN HUMAN SERVICES**
Examination of ethical and legal issues in Human Services. Includes how to work with culturally diverse populations and issues related to gender and confidentiality.
- SOCI 4038: INTRODUCTION TO WOMEN'S STUDIES**
General introduction to the wide range of issues related to the status of women. "Women Studies Course." (Crosslisted with HUMN 4038, PSYC 4038 and WMST 4038).
- SOCI 4061: RESEARCH DESIGN AND STATISTICAL MEASUREMENT**
Design, analysis and application of social science research techniques; methods of measurement. (Crosslisted with PSYC 4661).
- SOCI 4131: SOCIAL PSYCHOLOGY**
Conformity, mass communication and propaganda, self-justification, prejudice, human aggression, attraction, cooperation and competition theory, research and application. (Crosslisted with PSYC 4131).
- SOCI 4132: SOCIAL STRUCTURE: CLASS, POWER AND STATUS**
Various interpretations of America's system of social stratification.
- SOCI 4133: JUVENILE DELINQUENCY**
Individual and community aspects of juvenile delinquency; theories of causes and modes of control. (Crosslisted with CRIM 4133).
- SOCI 4135: THE DEATH PENALTY**
Introduction to history and development of capital punishment as a social institution. Special focus on issues like deterrence, discrimination and execution of innocent prisoners. (Crosslisted with CRIM 4135).
- SOCI 4136: WOMEN AND THE LAW**
Evolution of women's legal rights in the United States. Examination of contemporary issues in context of human rights law. Legal status of women in economic, political and judicial sectors. (Crosslisted with WMST 4136).
- SOCI 4137: RACE AND THE LAW**
Evolution of legal rights of race/ethnic groups in U.S. from sociological perspective. Examination of civil rights movement, hate crimes and Affirmative Action policy.
- SOCI 4138: WOMEN OF COLOR IN THE UNITED STATES**
Focus on the diverse experiences of women of color in the United States, using race, class and sexuality as analytical tools

- to explore these experiences.
- SOCI 4232: THEORIES OF SOCIETY**
A review of historical and contemporary statements on the nature of society by philosophers and scientists.
- SOCI 4233: RELIGION IN SOCIETY**
Examination of the major theories of religion in society and empirical research on religious membership and participation; study of issues such as secularization and role of religion in modern society.
- SOCI 4234: ORGANIZATIONS IN SOCIETY**
Study of several aspects of our organizational society such as roles, power and membership; investigation of many types of organizations and their influence on individuals.
- SOCI 4237: CULTURE AND CONSCIOUSNESS**
The course will explore the nature of interaction between culture and human consciousness. Specifically, it will examine the impact of culture on the perception of space and time, the definition of reality and the formation of belief and value structures.
- SOCI 4238: SOCIAL CONFLICT AND MEDIATION**
Examines theories of social conflict and application of dispute resolution/ mediation techniques to needs of community groups, courts, churches, businesses and non-governmental agencies.
- SOCI 4239: EGYPT IN TRANSITION**
Course exposes students to culture, history, religion and politics of Egypt and the Middle East. It explores sociological, historical and cross-cultural forces shaping modern Egypt.
- SOCI 4330: CULTURAL STUDY ABROAD**
Prerequisite: Permission of instructor. Course exposes students to culture, history, religion and politics of another country. Involves foreign travel, and includes prerequisite of semester long course focusing on study abroad country.
- SOCI 4331: PRISON AND SOCIETY**
Correctional institutions in the United States; analysis of their changing roles and functions. (Crosslisted with CRIM 4331).
- SOCI 4332: SOCIOLOGY OF LAW**
The course will focus upon the classic confrontation between the rights of the individual and the welfare of the greater society and examine a number of the most emotionally charged and problematic issues from the perspectives of sociological, philosophical and legal theories.
- SOCI 4333: CRISIS INTERVENTION**
The course is aimed at providing students with basic knowledge of crisis intervention and effective listening skills. The course serves as a prerequisite for the undergraduate practicum in crisis intervention.
- SOCI 4334: CRIMINAL LAW**
Survey of structure and rationale for criminal law; topics include criminal liability, criminal defenses and types of offenses. (Crosslisted with CRIM 4334).
- SOCI 4335: SOCIAL CHANGE**
Macrosocial change from hunting and gathering societies, through horticultural and agrarian societies to industrial societies.
- SOCI 4431: WOMEN IN SOCIETY**
A cross-cultural study of the environment, biological and cultural factors in the division of labor and assignment of roles, male and female. "Women's Studies Course." (Crosslisted with ANTH 4431).
- SOCI 4432: HUMAN RIGHTS AND SOCIAL JUSTICE**
Exploration of conceptions of human rights and of recent attempts to reconcile such conceptions in the context of globalization and from perspective of social justice.
- SOCI 4433: PUBLIC SERVICE MANAGEMENT**
Overview of basic theories of administrative organization, relationships and behavior. How to structure, manage, direct and control units within governmental organizations.
- SOCI 4434: PUBLIC SERVICE LEADERSHIP**
Examination of determinants and consequences of effective and ineffective leadership in governmental organizations.
- SOCI 4435: STRATEGIC PLANNING**
Strategic planning and facilitation of organizational change in governmental organizations.
- SOCI 4436: ORGANIZATIONAL COMMUNICATION**
Examination of general communication processes and dynamics within governmental organizations.
- SOCI 4534: RACE AND ETHNIC RELATIONS**
Historical development of race/ethnic relations from multiple sociological perspectives. Immigration and white privilege emphasized. Includes international component.
- SOCI 4535: MINORITIES IN AMERICA**
Economic, political and social status of minority subcultures; the changing nature of minority-majority relations. "May include Women's Studies content."
- SOCI 4536: THE AGING EXPERIENCE**
Examines cross-cultural differences, retirement, generational issues, death and dying and political and social implications of the aging experience for today's and tomorrow's elderly. (Crosslisted with PSYC 4536).
- SOCI 4538: FAMILY AND SOCIETY**
Social and legal foundations of the family as an institution, examined in the context of marriage, sex roles and child rearing.
- SOCI 4739: INTERNSHIP IN HUMAN SERVICES**
Prerequisites: Permission of instructor. Students will do one-semester field placement in Human Services agency. (Crosslisted with PSYC 4739).
- SOCI 4810: HONORS STATISTICS LAB**
Prerequisite: Must be Sociology major; must pass entry algebra test during first Honors Statistics class with score of 80% or higher. Computer lab class that must be taken concurrently with Honors Statistics (SOCI 4830).

- SOCI 4811: HONORS RESEARCH METHODS LAB**
Prerequisite: Must be Sociology major; must pass entry algebra test during first Honors Methods class with score of 80% or higher. Computer lab class that must be taken concurrently with Honors Research Methods (SOCI 4831).
- SOCI 4830: HONORS STATISTICS**
Prerequisite: Must be Sociology major; must pass entry algebra test during first Honors Statistics class with score of 80% or higher. Teaches motivated students how to use, understand and conduct data analysis. Must be taken concurrently with Honors Statistics Lab (SOCI 4810).
- SOCI 4831: HONORS RESEARCH METHODS**
Prerequisite: Must be Sociology major; must pass entry algebra test during first Honors Research Methods class with score of 80% or higher. Teaches motivated students how to design, understand, evaluate and conduct various forms of social research. Must be taken concurrently with Honors Research Methods Lab (SOCI 4811).
- SOCI 4832: HONORS THEORIES OF SOCIETY**
Exploration of classical sociological thinkers. Limited coverage of major developments in sociological theory since 1930. Course is for motivated Sociology majors only who have completed at least 9 hours of Sociology courses with cumulative GPA of 3.5. Enrollment by permission of instructor only.
- SOCI 4834: STATISTICS**
Prerequisite: College Algebra. Teaches students how to use, understand and conduct data analysis.
- SOCI 4835: RESEARCH METHODS**
Prerequisite: College Algebra. Teaches students how to design, understand, evaluate and conduct various forms of social research.
- SOCI 4839: INDEPENDENT STUDY IN SOCIOLOGY**
Prerequisite: Approval of advisor and independent study director. Independent study in Sociology.
- SOCI 4931: SELECTED TOPICS IN SOCIOLOGY**
Identified by specific title each time course is offered.

SOFTWARE ENGINEERING

- SWEN 4230: INTRODUCTION TO SOFTWARE PROCESS AND PROJECT MANAGEMENT**
Prerequisite: CSCI 3333. Introduction to Software Process Models, process modeling and improvement; project planning, scheduling and project management.
- SWEN 4432: SOFTWARE ENGINEERING**
Prerequisite: A course in programming in a high level language, Data Structures recommended. Introduction to Software Engineering. Major phases of the software life cycle are introduced from requirements through maintenance.
- SWEN 4433: SOFTWARE ENGINEERING TOOLS**
Prerequisite: SWEN 4432. Current tools used in industry to support various phases of software development are covered such as Rational Rose, Objectory Process, as well as coverage of object-oriented modeling using Unified Modeling Language (UML).
- SWEN 4435: INTRODUCTION TO PERSONAL SOFTWARE PROCESS**
Prerequisite: CSCI 3133. Personal evaluation and practice of the software design process, assessments, modeling and improving techniques.
- SWEN 4931: RESEARCH TOPICS IN SWEN**
Identified by specific title each time course is offered.

SPANISH

- SPAN 3131: INTENSIVE SPANISH II**
Prerequisite: 2000 level Spanish or the equivalent. Focus on the intensive study of spoken and written language to facilitate spontaneity of expression.
- SPAN 3132: INTENSIVE SPANISH III**
Prerequisite: SPAN 3131 or the equivalent. Focus on the intensive study of spoken and written language to facilitate spontaneity of expression.
- SPAN 4931: SELECTED TOPICS IN SPANISH**
Identified by specific title each time course is offered.

SPECIAL EDUCATION

- SPED 4030: SURVEY OF EXCEPTIONALITIES**
Provides a study of various categories of disabilities to include etiology and effects of disability on various aspects of development.
- SPED 4131: ASSESSMENT IN SPECIAL EDUCATION**
Prerequisite: SPED 4030 or equivalent. A survey of special education assessment procedures with a focus on alternate assessment procedures used in inclusive settings to link assessment and instruction.
- SPED 4132: DIAGNOSTIC INSTRUCTION FOR LEARNERS WITH SPECIAL NEEDS**
Prerequisite: SPED 4030 or equivalent. Covers the development and application of curricula, materials, methodologies and classroom practices in response to the strengths and needs of all low performing students in special education and inclusive settings. Field experiences required.
- SPED 4133: INDIVIDUALIZING INSTRUCTION FOR STUDENTS WITH DISABILITIES**
Prerequisites: SPED 4030, 4131, 4132, 4231, 4331 or equivalents. This course is for undergraduate students only. Covers necessary adaptations to meet the learning needs of exceptional students, for prescriptive models for intervention and ways of observing, recording and responding to behaviors. Field experiences required.
- SPED 4231: IMPLEMENTING POSITIVE BEHAVIOR SUPPORTS**

Prerequisite: SPED 4030 or equivalent. A comprehensive study of related legal and social issues and the implementation of techniques for supporting students with challenging behaviors in home and school settings. Field experiences required.

- SPED 4331: FAMILIES, PROFESSIONALS AND STUDENTS WITH EXCEPTIONALITIES**
Prerequisite: SPED 4030 or equivalent. Emphasis on the collaborative process between professionals and families of students with exceptionalities across programs and placements focusing on required skills across the lifespan.
- SPED 4332: EARLY CHILDHOOD SPECIAL EDUCATION**
Prerequisite: SPED 4030. A study of infants and young children with special needs with a focus on the development of IFSPs; transitions from infant to early childhood programs and to general education. Field experiences required.
- SPED 4333: ADVANCED EARLY CHILDHOOD SPECIAL EDUCATION**
This course will extend key topics in early childhood special education presented in the SPED/ECED 4332 course, specifically strategies and techniques used by practitioners in early childhood special education settings serving children birth to age 5. Field experiences required
- SPED 4737: PRACTICUM IN SPECIAL EDUCATION FOR YOUNG CHILDREN**
Prerequisites: Completion of all prior course work for the Early Childhood Handicapped Endorsement. Fieldwork with infants and/or young children with special needs to include school based, agency based or private programs.
- SPED 4839: INDEPENDENT STUDY OF INDIVIDUAL DIFFERENCES**
Prerequisites: Approval of instructor and Associate Dean.
- SPED 4931: SELECTED TOPICS IN SPECIAL EDUCATION**
Identified by specific title each time course is offered.

STUDIES IN LANGUAGE AND CULTURE

- SILC 4031: SPANISH FOR BILINGUAL TEACHERS**
Prerequisite: Fluency in Spanish. Development of advanced reading and writing skills in Spanish with special emphasis on communication with the bilingual community. Course taught in Spanish.
- SILC 4032: INTRODUCTION TO THE STUDY OF LANGUAGES**
Study of phonology, morphology, syntax and semantics of the English language.
- SILC 4130: FOUNDATIONS OF BILINGUAL AND ESL EDUCATION**
Survey of social, political, economic and educational issues related to the development and implementation of bilingual education and ESL programs.
- SILC 4131: ESL METHODS**
Emphasis on teaching English to second language learners in the ESL classroom and on putting theory into practice.
- SILC 4132: CONTENT-BASED ESL**
Issues related to the integration of content with ESL instruction. Emphasis on literacy, mathematics, science and social studies.
- SILC 4133: LANGUAGE LEARNING**
Analysis of language acquisition and second language learning.
- SILC 4134: TEACHING ESL IN THE BILINGUAL CLASSROOM**
Methods of teaching English to second language learners in the bilingual classroom. Emphasis on the relationship between native language and second language development.
- SILC 4135: THEORIES OF AMERICAN PLURALISM**
A review of the theoretical foundations of pluralism and their impact on mainstream America.
- SILC 4136: BILINGUAL CURRICULUM IN THE CONTENT AREAS**
Prerequisites: Fluency in Spanish and SILC 4031. Study and design of the content area curriculum within a bilingual education program. Course taught in Spanish and English.
- SILC 4137: DEVELOPING CONTENT LITERACY IN THE BILINGUAL CLASSROOM**
Methods of developing English literacy in the bilingual classroom content areas. Emphasis is on the relationship between native language and second language development.
- SILC 4138: LINGUISTIC DIVERSITY IN YOUNG CHILDREN**
The purpose of this course is to examine the language development of children from birth to age 5. Emphasis is placed on first and second language acquisition, the role of the first language, and how second language development can be supported.
- SILC 4531: DEVELOPMENT OF BILITERACY**
Prerequisites: Fluency in Spanish and SILC 4031. A comprehensive study of theories and research dealing with the development of biliteracy. Course taught in Spanish and English.
- SILC 4839: INDEPENDENT STUDY IN BILINGUAL EDUCATION/ESL**
Prerequisites: Approval of instructor and Associate Dean.
- SILC 4931: SELECTED TOPICS IN THE STUDIES OF LANGUAGE AND CULTURE**
Identified by title each time course offered.

SYSTEMS ENGINEERING

- SENG 4130: INTRODUCTION TO SYSTEMS ENGINEERING**
Prerequisite: Calculus III. Overview of the systems engineering discipline. Topics include the systems engineering process, fundamentals of engineering economy and an introduction to probability and expectation with systems engineering applications.

TEACHER EDUCATION

- *See INST footnote
TCED 4010: SENIOR SEMINAR I

- Prerequisites: Admission to Teacher Education Program and an approved, signed degree or certification plan on file in the SoE. This course is designed to assist students to understand the State and federal rules and standards for their chosen field.
- TCED 4012: SENIOR SEMINAR II**
Prerequisites: Admission to Teacher Education Program and an approved, signed degree or certification plan on file in the SoE. This course is designed to assist students to understand the State and federal rules and standards for their chosen field.
- TCED 4033: CREATING POSITIVE LEARNING ENVIRONMENTS IN EC-6**
Prerequisites: Completion of WRIT 3037 with a B- or better and completion of INST 3133 with a passing grade. Theories and strategies for guiding young children's behavior and for effectively managing EC-6 classroom environments. Focus will be on approaches that promote autonomy in children.
- TCED 4034: CREATING POSITIVE LEARNING ENVIRONMENTS IN 4-8 & 8-12**
Prerequisites: Completion of WRIT 3037 with a B- or better and completion of INST 3133 with a passing grade. Theories and strategies for guiding children's behavior and for effectively managing classroom environments. Focus will be on approaches that promote autonomy in children.
- TCED 4231: SOCIAL STUDIES METHODS FOR EC-6**
Prerequisites: Admission to Teacher Education Program, successful completion of or concurrent enrollment in TCED 4033(except the EC-4 Generalist and the EC-12 Special Education Certification Program) and completion of WRIT 3037 with a grade of C+ or better. Curriculum planning, instructional activities and assessment techniques for developing social studies knowledge, citizenship and critical thinking skills; emphasis on sound practice and research based strategies for teaching social studies for EC-6 students. Field experiences required.
- TCED 4232: SCIENCE METHODS FOR EC-6**
Prerequisites: Admission to Teacher Education Program, successful completion of or concurrent enrollment in TCED 4033 (except the EC-4 Generalist and the EC-12 Special Education Certification Program) and completion of WRIT 3037 with a grade of C+ or better. Development of science concepts in EC-6 instruction. An emphasis on curriculum materials and the process approach as a science teaching method. Field experiences required.
- TCED 4233: MATHEMATICS METHODS FOR EC-6**
Prerequisites: MATH 3032, Admission to Teacher Education Program, successful completion of or concurrent enrollment in TCED 4033 (except the EC-4 Generalist and the EC-12 Special Education Certification Program) and completion of WRIT 3037 with a grade of C+ or better. Methods of developing students' understanding of mathematics; emphasis on problem solving with manipulative and curriculum materials appropriate for use with EC-6 students. Field experiences required.
- TCED 4331: SOCIAL STUDIES METHODS FOR GRADES 4-8**
Prerequisites: Admission to Teacher Education Program, successful completion of or concurrent enrollment in TCED 4034 (except 8-12 Social Studies and 8-12 History Certification Program) and completion of WRIT 3037 with a grade of C+ or better. Curriculum planning, instructional activities and assessment techniques for developing social studies knowledge, citizenship and critical thinking skills; emphasis on best practice and research based strategies for teaching social studies for 4-8 grade students. Field experiences required.
- TCED 4332: SCIENCE METHODS FOR GRADES 4-8**
Prerequisites: Admission to Teacher Education Program, successful completion of or concurrent enrollment in TCED 4034 (except 8-12 Social Studies and 8-12 History Certification Program) and completion of LITR 4031 or WRIT 3037 with a grade of C+ or better. Development of science concepts and teaching strategies for grades 4-8. Emphasis on the inquiry approach to teaching science consistent with concepts of cognitive development. Integrated Physics and Chemistry will also be addressed as well as the use of technology in the science classroom. Field experiences required.
- TCED 4333: MATHEMATICS METHODS FOR GRADES 4-8**
Prerequisites: MATH 3037, Admission to Teacher Education Program, successful completion of or concurrent enrollment in TCED 4034 (except 8-12 Social Studies and 8-12 History Certification Program) and completion of LITR 4031 or WRIT 3037 with a grade of C+ or better. Methods of developing students' understanding of mathematics. Emphasis on problem solving with manipulative and curriculum materials appropriate for use with 4-8 students. Algebraic and graphing technology will be addressed. Field experiences required.
- TCED 4631: METHODS IN SECONDARY SOCIAL STUDIES**
Prerequisites: Admission to Teacher Education Program, successful completion of or concurrent enrollment in TCED 4034 (except 8-12 Social Studies and 8-12 History Certification Program) and completion of WRIT 3037 with a grade of C+ or better. Strategies for developing social studies activities; emphasis on instructional techniques, content disciplines, local community, values and controversial issues and national trends. Field experiences required.
- TCED 4632: METHODS IN SECONDARY SCIENCE**
Prerequisites: Admission to Teacher Education Program, successful completion of or concurrent enrollment in TCED 4034 (except 8-12 Social Studies and 8-12 History Certification Program) and completion of ENGL 2311, ENGL 2314 or WRIT 3037 with a grade of C+ or better. Strategies for teaching secondary science; emphasis on laboratory management and safety, development of scientific reasoning and issues and trends in secondary science education. Field experiences required.
- TCED 4633: METHODS IN SECONDARY MATHEMATICS**
Prerequisites: MATH 3034 or equivalent, and Admission to Teacher Education Program, successful completion of or concurrent enrollment in TCED 4034 (except 8-12 Social Studies and 8-12 History Certification Program) and completion of ENGL 2311, ENGL 2314 or WRIT 3037 with a grade of C+ or better. Strategies for teaching secondary mathematics; emphasis on instructional techniques appropriate for secondary mathematics, development of problem-solving skills and issues and trends in secondary mathematics education. Field experiences required.
- TCED 4634: METHODS IN TECHNOLOGY**
Prerequisites: Admission to Teacher Education Program, successful completion of or concurrent enrollment in TCED 4034 (except 8-12 Social Studies and 8-12 History Certification Program) and completion of WRIT 3037 with a grade of

- C+ or better. Strategies for teaching technology applications; emphasis on instructional techniques, development of problem-solving skills and issues and trends in technology applications. Field experiences required.
- TCED 4668: PRE-SERVICE INTERNSHIP II- GENERALIST**
Prerequisites: TCED 4738 and approval of the Associate Dean. This Internship II course is restricted to students in EC-6 Generalist (Early Childhood Concentration) and the 4-8 Generalist programs. Supervised field experiences conducted in a public school setting.
- TCED 4709: POST-DEGREE INTERNSHIP IN TEACHING**
Prerequisites: TCED 4768 and TCED 4769 and approval of the Associate Dean. This internship is restricted to members of UHCL's Alternative Certification Program.
- TCED 4737: THECB AIDE PROJECT**
Prerequisites: Admission to Teacher Education Program and approval of the Associate Dean. Supervised field project under the joint supervision of a public school district and the UHCL Center for Professional Development of Teachers. Student must be enrolled in the Texas Higher Education Coordinating Board (THECB) Aide Program.
- TCED 4738: PRE-SERVICE INTERNSHIP I**
Prerequisites: Approval of Associate Dean and completion of WRIT 3037 with a grade of C+ or better. Supervised field experience conducted in a public school setting.
- TCED 4768: POST-DEGREE INTERNSHIP I**
Prerequisite: Approval of Associate Dean. Post-baccalaureate internship with joint supervision by the school district where the intern is employed and the UHCL Center for Professional Development of Teachers.
- TCED 4769: POST-DEGREE INTERNSHIP II**
Prerequisite: Approval of Associate Dean. Post-baccalaureate internship with joint supervision by the school district where the intern is employed and the UHCL Center for Professional Development of Teachers.
- TCED 4798: PRE-SERVICE INTERNSHIP II**
Prerequisites: TCED 4738 and approval of the Associate Dean. Supervised field experiences conducted in a public school setting.
- TCED 4839: INDEPENDENT STUDY IN TEACHER EDUCATION**
Prerequisites: Approval of instructor and Associate Dean.
- TCED 4931: SELECTED TOPICS IN TEACHER EDUCATION**
Identified by title each time course is offered.

WOMEN'S STUDIES

- WMST 4038: INTRODUCTION TO WOMEN'S STUDIES**
General introduction to the status of women in many academic disciplines. (Crosslisted with HUMN 4038, PSYC 4038, SOCI 4038).
- WMST 4131: LATINAS IN THE UNITED STATES**
Course focuses on the experiences and contributions of Latinas in the United States, using race, class and sexuality as analytical tools to explore these experiences.
- WMST 4132: WOMEN OF COLOR**
Course focuses on the diverse experiences of women of color in the United States, using race, class and sexuality as analytical tools to explore these experiences.
- WMST 4133: WOMEN AND GENDER IN LATIN AMERICA**
This course examines multiple approaches to feminism among Latin American women and Latinas in the U.S., paying special attention to intersections of gender, race and class in diverse feminisms.
- WMST 4134: LATINA AND LATIN AMERICAN FEMINISMS**
This course invites students to use the historical record to imagine and analyze gender and the roles of women in Latin America.
- WMST 4136: WOMEN AND THE LAW**
Evolution of women's legal rights in the United States. Examination of contemporary issues in context of human rights law. Legal status of women in economic, political and judicial sectors. (Crosslisted with SOCI 4136).
- WMST 4231: FEMINIST ETHICS/METHODOLOGIES**
Course will examine feminist methodologies, their applications and the ethical dilemmas that are inherent in research on women and gender.
- WMST 4334: PSYCHOLOGY OF WOMEN**
Development of sex differences and sex roles; modern viewpoints on gender appropriate behavior.
- WMST 4337: VIOLENCE AGAINST WOMEN**
Global perspectives of violence against women by men. Topics include rape, sexual abuse, incest, female genital mutilation, battering, sexual slavery, and sexual harassment.
- WMST 4537: WOMEN IN LITERATURE**
Heroines from Eve to Beloved; literature constructs the female; emphasis on nineteenth and twentieth century works.
- WMST 4539: WOMEN IN THE VISUAL ARTS**
Feminist art theory and criticism, experiences of women artists in 20th century. Issues such as reclaiming past histories, seeking forms to valorize feminine experience, exploring personal identity.
- WMST 4732: SEMINAR IN WOMEN'S STUDIES**
Prerequisite: Any previous course with Women's Studies content. An advanced course in Women's Studies, designed to acquaint the student with contemporary issues in feminist scholarship across the disciplines. (Crosslisted with HUMN 4732/ PSYC 4732).
- WMST 4819: INDEPENDENT STUDY IN WOMEN'S STUDIES**
Independent Study in Women's Studies. Permission of instructor required.

WMST 4839: INDEPENDENT STUDY IN WOMEN'S STUDIES

Independent Study in Women's Studies. Permission of instructor required.

WMST 4931: SELECTED TOPICS IN WOMEN'S STUDIES

Identified by specific title each time course is offered.

WRITING

*Pending Coordinating Board approval

WRIT 3035: INTERMEDIATE WRITING

Prerequisite: 6 hours of lower-level English. A review of basic grammar. Focus on the writing of short papers, themes and reports.

WRIT 3037: ADVANCED WRITING

From invention of ideas to strategies appropriate to various kinds of writing. Models of organization, analysis of style, role and importance of mechanics and syntax.

WRIT 3132: WRITTEN COMMUNICATIONS IN BUSINESS

Theory and practices of business communications; preparation of effective letters, policy statements, procedures, reports and related documents.

WRIT 3135: TECHNICAL WRITING

Approaches to the writing of technical documents: proposal reports, manuals and descriptions.

***WRIT 3231: TUTOR TRAINING PRACTICUM**

Prerequisite: Permission of instructor. Prepares students to work as writing center peer tutor. Emphasis placed on learning about composing process and tutoring strategies.