<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>AFA 3435</td>
<td>Black Women in America</td>
<td>6A MW (3)</td>
<td>AS AFA</td>
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<tr>
<td>AFA 3500</td>
<td>African American Community Research</td>
<td>8W (3)</td>
<td>AS AFA</td>
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<td>AFA 4500</td>
<td>Slavery in the Americas and the Caribbean</td>
<td>8W (3)</td>
<td>AS AFA</td>
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<td>AFA 4502</td>
<td>Middle Passage</td>
<td>8W AF HP (3)</td>
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<td>AFA 4900</td>
<td>Directed Readings</td>
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<td>AFA 4931</td>
<td>Selected Topics in African Studies</td>
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<td>AFA 5935</td>
<td>Issues in African Studies</td>
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<td>AFH 3100</td>
<td>African History to 1850</td>
<td>HP AF (3)</td>
<td>AS HTY</td>
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<td>African History since 1850</td>
<td>HP AF (3)</td>
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<td>AFR 1101</td>
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<td>AFR 1120</td>
<td>The Air Force Today: Structure And Roles</td>
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<td>AFR 1903</td>
<td>Directed Independent Studies</td>
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<td>AFR 2000</td>
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<td>AFR 2130</td>
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<td>(1)</td>
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<td>The Evolution of USAF Aerospace Power Part II</td>
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<td>AFR 3220</td>
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<td>AFR 4201</td>
<td>National Security Affairs &amp; Preparation for Active Duty</td>
<td>Part 1</td>
<td>(3) US AFR</td>
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<td>AFR 4202</td>
<td>National Security Affairs &amp; Preparation for Active Duty</td>
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<td>AFS 2250</td>
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<td>AFS 3251</td>
<td>Environmental - Cultural Study in Africa</td>
<td>SS SA FA (3)</td>
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<td>AMH 3130</td>
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<td>(4)</td>
<td>AS HTY</td>
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<tr>
<td>AMH 3140</td>
<td>The Age of Jefferson</td>
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<td>AS HTY</td>
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<tr>
<td>AMH 3150</td>
<td>The Age of Jackson</td>
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The interdisciplinary survey of African black women, including the African roots, myths, and realities surrounding that experience.
AMH 3170 The Civil War and Reconstruction (4) AS HTY
An examination of political, social, and economic climate of the 1860’s that led to the American Civil War. The course does focus upon the war itself in its military, diplomatic, and political consequences through the end of the Reconstruction (1877).

AMH 3201 The United States, 1877-1914 (4) AS HTY
A study of America from the end of Reconstruction to World War I, focusing on political, social, and international developments, the course covers industrialization, immigration, unions, reform, feminism, race relations and imperialism.

AMH 3231 The United States, 1914-1945 (4) AS HTY
The United States from World War I to the end of World War II. Covering political, social and international developments, the course examines the lives of Americans, including minorities and women, during war, prosperity, and the Great Depression.

AMH 3270 The United States since 1945 (4) AS HTY
A study of America’s role in the Cold War, in Vietnam, and in the post-Cold War era. Also examines domestic developments, such as the consumer culture, protest movements, and abuses of political power.

AMH 3403 The South since 1865 (4) AS HTY
Southern history since the surrender at Appomattox. Topics covered include Reconstruction, the Populist revolt, race relations, disfranchisement, Southern women, and the Civil Rights Movement.

AMH 3421 Early Florida (4) AS HTY
A history of colonial Florida under the Spanish and English. Florida as an area of discovery, colonization, and imperial conflict; the emergence of Florida within the regional setting.

AMH 3423 Modern Florida (4) AS HTY
An historical survey of Florida from the territorial period to the modern era. An examination of the social, political, and economic changes occurring in Florida between 1821 and the 1980s.

AMH 3500 American Labor History (4) AS HTY
A study of American workers from the colonial period to the present. Examines the changing nature of work, its effects on workers (including minorities and women), and their responses as expressed in strikes, unions, and political action.

AMH 3510 U.S. Diplomatic History to 1898 6A (4) AS HTY
The development of American Foreign Relations in the Agricultural era.

AMH 3511 U.S. Diplomatic History in the 20th Century (4) AS HTY
A history of American Foreign Relations in the Industrial era.

AMH 3530 Immigration History (4) AS HTY
A study of the composition and character of the “American” people with emphasis on the period from 1840s to the 1920s. Examines old world backgrounds of immigrants and their responses to the new world’s social, economic and political conditions.

AMH 3540 United States Military History (4) AS HTY
A study of American military policy and practice from colonial days to the present. Attention is given both to tactics and to strategy in the unfolding formulation and development of American armed might.

AMH 3545 War and American Empire (4) AS HTY
The U.S. evolved in 200 years from 13 colonies to the number one power in the world. To achieve this goal we utilized war to achieve empire. This course will examine the link between American War and empire from the Revolution through Vietnam.

AMH 3561 American Women I (4) AS HTY
A study of women in the evolution of American society from European origins to 1877. Women’s roles in the family, economy, politics, wars, and reform movements will be examined.

AMH 3562 American Women II (4) AS HTY
A study of women in the evolution of American society from 1877 to the present. Women’s roles in the family, economy, politics, immigration, wars, religion and reform movements will be examined.

AMH 3571 African American History to 1865 HP (3) AS AFA
A survey of African American history with an emphasis on North America to 1865. Topics include pre-colonial Africa, transatlantic slave trade, slavery, and the Civil War.

AMH 3572 African American History since 1865 HP (3) AS AFA
A survey of African American history since 1865. Topics include Reconstruction, World War I, World War II, and the Civil Rights Movement.

AMH 4601 Early American History and Archaeology (6) AS HTY
This course includes a five-week-long summer practicum in early American historical archaeology. The class brings together historical research, material culture studies, and historical archaeology methods within a professional historical archaeology setting.

AML 3031 American Literature From the Beginnings to 1860 (3) AS ENG
A study of representative works from the period of early settlement through American Romanticism, with emphasis on such writers as Cooper, Irving, Bryant, Hawthorne, Emerson, Melville, Thoreau, and Poe, among others.

AML 3041 American Literature From 1860 to 1912 (3) AS ENG
A study of representative works of selected American Realists and early Naturalists, among them Whitman, Dickinson, Twain, James, Howells, Crane, Dreiser, Wharton, Robinson, Dunbar, and Johnson.

AML 3051 American Literature From 1912-1945 (3) AS ENG
A study of poetry, drama, and fiction by such writers as Pound, Stein, Fitzgerald, Hemingway, Faulkner, Porter, Toomer, Cummings, Williams, Anderson, Steinbeck, Wright, West, Stevens, Henry Miller, and others.

AML 3413 Historical Perspectives in Early American Literature HP (3) AS ENG
Examines American literature from the Colonial Period to the Civil War as a manifestation of geographical, political, social, and intellectual forces. Will not be counted toward the English major.

AML 3604 American Literature 6A LW (3) AS ENG
A study of African American literature from the nineteenth century to the present, including the works of such writers as W.E.B. Dubois, Jean Toomer, Langston Hughes, Richard Wright, Ralph Ellison, LeRoi Jones, and Nikki Giovanni.

AML 4111 Nineteenth-Century American Novel (3) AS ENG
A study of the American novel from its beginnings through 1900, including such novelists as Cooper, Hawthorne, Melville, James, Twain, Crane, and Dreiser, among others.

AML 4121 Twentieth-Century American Novel (3) AS ENG
A study of major trends and influences in American prose fiction from 1900 to the present, including works by such writers as Hemingway, London, Wharton, Fitzgerald, Faulkner, West, Mailer, Bellow, Ellison, Donleavy, Updike, Vonnegut, and others.

AML 4261 Literature of the South (3) AS ENG
A study of the major writers of the Southern Renaissance, including writers such as Faulkner, Wolfe, Caldwell, Hellman, McCullers, O’Connor, Warren, Styron, Tate, Davidson, and Dickey.

AML 4300 Selected American Authors (3) AS ENG
The study of two or three related major authors in American literature. The course may include such writers as Melville and Hawthorne, Hemingway and Faulkner, James and Twain, Pound and Eliot, Stevens and Lowell, etc. Specific topics will vary. May be taken twice for credit with different topics.

AML 4303 Zora Neale Hurston: Major Works 6A MW/LW (3) AS AFA PR: Junior or Senior standing. The course focuses on the life, works, and times of Zora Neale Hurston as a major Harlem Renaissance figure and a product of African Florida and her influence.

AML 4624 Black Women Writers 6A LW (3) AS AFA
Black women writers focuses on the literature of women of Africa and the African Diaspora. It examines the social, historical, artistic, political, economic, and spiritual lives of African American women in context of a global community.

AMS 2030 Introduction to American Studies SS HP (3) AS AMS
An overview of American Studies, the interdisciplinary study of American culture. Analysis of the arts and literature, including music; social issues; popular culture; material culture; cultural diversity; and social change. These approaches will be applied to a specific cultural era.

AMS 2177 Colonial American Culture HP (3) AS AMS
An examination of cultural patterns in America as they developed between 1600 and 1780 with an emphasis on the texture of everyday life.

AMS 2178 Colonial American Culture HP (3) AS AMS
An examination of cultural patterns in America from 1776 to 1900 with an emphasis on the texture of everyday life.

AMS 2210 Twentieth-century American Culture HP (3) AS AMS
An examination of cultural patterns in America from 1900 to the present with an emphasis on the texture of everyday life.

AMS 2236 Issues in American Civilization (1-4) AS AMS
An examination of selected topics such as natural environment and the quality of life, the American Myth and the American society, popular music, American communities, vigilante tradition, jazz music, role of the family, American success myth, youth in America. Topic varies.
### AMS Course Descriptions

**AMS 3001 American Culture 1880-1915** (6) AS AMS
Integration of major aspects of American life between the 1880s and World War I.

**AMS 3210 Regions of America** (6) AS AMS
The pattern of American culture as revealed through an examination of selected writings and other pertinent materials dealing with selected American regions. Topic varies.

**AMS 3230 America During the 20s and 30s** (3-4) AS AMS
Selected interdisciplinary materials are used to examine the relationships among regionalism, nationalism and internationalism during the twenties and thirties. Emphasis is placed on the measure of cultural nationalism attained by the United States during this period.

**AMS 3260 American Culture, 1830-1860** (6) AS AMS
Examines the patterns of American culture in the years leading up to the Civil War. Topics include religion and social reform, race relations, and the impact of industrialization.

**AMS 3302 Architecture and the American Environment** (3) AS AMS
By means of slides, lectures and discussion, this course examines 350 years of American architectural history. Architectural styles, aesthetics and the relation between a building and its social environment are stressed.

**AMS 3370 Southern Women: Myth and Reality** (6) AS AMS
This course will identify the myths surrounding Southern Women, discuss their sources and purposes, and contrast them with history.

**AMS 3601 Material Culture and American Society** (3) AS AMS
By means of slides, lectures and student projects, examines connections between artifacts and American cultural attitudes from 17th century to present. Topics include: architecture, furniture, gravestones, toys, and the material subcultures of women, African-Americans and communal societies.

**AMS 3700 Racism in American Society** (3) AS AMS
An introduction into the causes and effects of racism in American history, literature, art, the media, and folklore. Related concepts of ethnicity, class conflicts, and racism are used to contrast them with history.

**AMS 3930 Selected Topics in American Studies** (1-4) AS AMS
Offerings include Cultural Darwinism in America, America Through Foreign Eyes, and The Female Hero in American Culture.

**AMS 4152 Film in American Culture** (3) AS AMS
Surveys the contributions to American culture of major films, studios, directors, stars, theaters, and controversies from the perspectives of genres and styles, critical methodologies and theories. Variable topics such as: series on a region, director, performer, subject, or period of time.

**AMS 4803 Major Themes in American History** (3) AS AMS
Investigates the role of one or more influential ideas in American culture, for example: individualism, identity, community, dissent, reform, utopianism, democracy. Emphasizes the critical analysis of a variety of primary and secondary sources.

**ANG 4910 Individual Research** (1-4) AS AMS
The content of the course will be governed by student demand and instructor interest. Instructor approval required prior to registration.

**ANG 5395 Visual Anthropology** (3) AS ANT
PR: Graduate standing. This class will examine the major dimensions of visual anthropology with an emphasis on the visual means of presenting anthropology to the discipline and general public. The course will focus on visual documentation and study of visual images.

**ANG 5406 Quantitative Methods in Anthropology** (3) AS ANT
PR: Graduate standing. This course is an introduction to quantitative methods for the anthropologist covering both classical statistical approaches and exploratory data analysis, using computers with statistical software.

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**ANT Course Descriptions**

**ANT 4149 Fantastic Archaeology** (3) AS ANT
PR: Graduate standing. This class will examine the major dimensions of archaeological interpretation with an emphasis on the visual means of presenting archaeology to the discipline and general public. The course will focus on visual documentation and study of visual images.
Antiquities, Noah's Ark, and the Shroud of Turin will be examined, with emphasis on skills in critical thinking that have much wider practical applications.

ANT 4153 North American Archaeology (3) AS ANT
PR: ANT 3101 or DPR. An examination of the evidence regarding the human settlement of North America from its beginning through the development of Aboriginal culture to the period of European conquest. Emphasis on the comparative study of material culture at selected sites from all time periods. No field work is involved.

ANT 4158 Florida Archaeology (4) AS ANT
PR: ANT 3101, DPR. Culture history and culture process over 10,000 years from the time of the first people in Florida (Paleo-Indians) through the elaborate Weeden Island and Safety Harbor and temple mound cultures to the Spanish entrada and consequences of European conquest. Review of temporal and spatial relationships within the entire eastern U.S. and elsewhere. May be part of a summer (or other semester) field school, combined with Field Methods in Archaeology and Laboratory Methods in Archaeology.

ANT 4163 Mesoamerican Archaeology (3) AS ANT
PR: ANT 3101 or DPR. The chronological sequence from its beginnings through Protohistoric development is described and analyzed. Cultures such as the Maya, Aztec, Mixtec, Zapotec, Olmec, and Toltec are included, with emphasis on the relationships between cultural ecology and the growth of civilization.

ANT 4165 South American Archaeology (3) AS ANT
PR: ANT 3101 or DPR. Describes and analyzes the sequence of cultural development in prehistoric South American cultures such as the Inca, Chavin, Moche, Wari, Chimú are included. Emphasis on the environmental setting and the relationship between cultural ecology and the growth of civilization.

ANT 4172 Historical Archaeology (4) AS ANT
PR: ANT 3101 or DPR. A survey and analysis of archaeology focused on the historic period. Laboratory research with data recovered from historic sites in addition to classwork.

ANT 4180 Laboratory Methods in Archaeology (2-4) AS ANT
PR: ANT 3101, DPR. Data and materials recovered from archaeological survey and excavation are processed in the laboratory; includes artifact cleaning, cataloguing, identification, and analysis; soil flotation; reconstruction and conservation of artifacts, mapmaking, etc. May be offered as part of a summer (or other semester) field school. May be combined with Florida Archaeology and Field Methods in Archaeology.

ANT 4181 Museum Methods (4) AS ANT
PR: ANT 3101 and DPR. Design, preparation and installation of exhibits in the Department of Anthropology Teaching Exhibit Gallery. Emphasis on theory, research, design, and construction. Discussion of museum-related issues such as administration and curation.

ANT 4183C Archaeological Science (4) AS ANT
PR: ANT 3101, DPR. This course focuses on the application of scientific methods of analysis to archaeological materials including bone, stone, pottery, and metal. Methods include absolute dating, remote sensing, optical and SEM microscopy, elemental and isotopic analysis. Laboratory sections provide hands-on experience with a variety of archaeological materials and analytical methods.

ANT 4231 Folklore 6A (3) AS ANT
PR: ANT 2410 or DPR. Focuses on cross-cultural methods and techniques regarding the collection, classification, and analysis of such materials as myths, jokes, games, and items of material culture. African (or African-derived), Oceanic and Native American societies are surveyed.

ANT 4241 Magic and Religion 6A MW (3) AS ANT
PR: ANT 2410 or DPR. The cross-cultural study of the social and cultural aspects of religion. Religious activities in traditional and modern societies will be discussed. Concepts of belief, behavior, religious practitioners and symbols of belief will be considered in light of their impact on the social, political or economic aspects of peoples' lives.

ANT 4255 Oral History (3) AS ANT
PR: ANT 2410 or DPR. A survey of the history, methods, and current applications of oral history research, primarily in the anthropological study of culture, but with reference to allied disciplines. Projects will become familiar with oral history through intensive analysis of selected case studies as well as guided field projects.

ANT 4302 Gender in Cross-Cultural Perspective MW (3) AS ANT
PR: ANT 2410 or DPR. Focuses on various theories, models, and beliefs about male-female behaviors and interactions in human cultures throughout history and in various societies in the world.

ANT 4312 North American Indians (3) AS ANT
PR: ANT 2410 or DPR. An examination of the evidence for the origin and antiquity of human beings in North America and of processes of regional development until the period of contact with European colonists. Emphasis on varieties of ecological adaptation, social, political and religious systems, enculturation and worldview, folklore and visual art.

ANT 4316 The Ethnic Diversity of the United States MW (3) AS ANT
PR: ANT 2410 or DPR. Special concerns include ethnic diversity in American society, historical and contemporary diversity in values, experiences, and lifestyles, and an examination of policies and problems affecting ethnic groups in the United States.

ANT 4323 Mexico and Central America (3) AS ANT
PR: ANT 2410. Restricted to Anthropology majors, LACS certificate students, juniors and seniors only. Focuses on the history, contemporary values and interpersonal relationships, and patterns of rural and urban life in Mesoamerica, Guatemala and Mexico are emphasized.

ANT 4340 The Caribbean 6A MW (3) AS ANT
PR: ANT 2410 or DPR. Restricted to junior and senior CAS majors. Main themes include: the depopulation of the aboriginal population and the resettlement of the area via slavery, indenture, and migration; contemporary ethnic heterogeneity; economic phenomenas of Third World health planning; development of a modern social and political consciousness. Religious diversity, music, the graphic arts, and the literature of the contemporary Caribbean will also be surveyed.

ANT 4390 Visual Anthropology (3) AS ANT
PR: ANT 2410 or DPR. The use of photographic techniques for the crosscultural recording and analysis of human activities. The study of ethnographic photography as both art and science, and the production of an anthropological study that expresses the goal of "visual literacy." Review and evaluation of the uses of visual techniques and the evidence they provide to the social scientist.

ANT 4401 Exploring Cross-Cultural Diversity MW (3) AS ANT
For non-Anthropology majors only. This course will introduce students to anthropological perspectives which are useful in understanding the implications of cultural diversity related to changing demographic patterns within country as well as to increasing globalization.

ANT 4432 The Individual and Culture 6A MW (3) AS ANT
PR: ANT 2410 or DPR. The relationship between the individual and society is studied cross-culturally. Main themes include child-rearing practices, psychosomatic illness and curing. Discussion of theories and models of personality development with special reference to their applicability to the emerging field of cross-cultural mental health and society.

ANT 4442 Urban Life and Culture (3) AS ANT
PR: ANT 2410 or DPR. The cross-cultural study of urbanization, urbanism and human behavior in urban environments. Emphasis on the ethnography of city life and its relationship to the practical applications of urban research.

ANT 4462 Health, Illness, and Culture (3) AS ANT
PR: ANT 2410 or DPR. The study of health and human behavior in cross-cultural perspective. Main themes include: the impact of disease on the development of human culture; comparative studies of curing practices; medical systems in their relationship to ideology. Emphasis on understanding the role of medicine, and the behavior of both practitioners and patients in modern societies.

ANT 4495 Methods in Cultural Research (3) AS ANT
PR: ANT 2410 or DPR. Restricted to juniors and seniors. The stages in the development and execution of ethnological research are discussed and practiced. Literature search, hypothesis formation, selection of data collection techniques, elucidation of information, data representation and analysis. Research design models from the case literature are studied and supervised research in the local community is designed and carried out.

ANT 4520C Forensic Anthropology (4) AS ANT
PR: ANT 2511 or DPR. This course is designed to familiarize students with forensic anthropology through lectures and lab work. Students will learn human skeletal biology for personal identification and cause of death. This course is restricted to Anthropology majors. Main themes include: the depopulation of the aboriginal population and the resettlement of the area via slavery, indenture, and migration; contemporary ethnic heterogeneity; economic phenomenas of Third World health planning; development of a modern social and political consciousness. Religious diversity, music, the graphic arts, and the literature of the contemporary Caribbean will also be surveyed.

ANT 4586 Prehistoric Human Evolution NS (3) AS ANT
PR: ANT 2511 or DPR. A survey of the fossil record from the early primates through the ascent of Homo sapiens sapiens, focusing on the human lineage. Biocultural patterns and cultures of the past are also covered.
ARA 4905 Directed Study (1-5) AS WLE
Departmental approval required. S/U only. Permits study options in Arabic not available in regularly scheduled curriculum at departmental discretion.

ARA 4930 Selected Topics (1-5) AS WLE
Departmental approval required. Course permits classes in Arabic not available in the regularly scheduled curriculum at departmental discretion.

ARC 2131 Introduction to Architectural Design and Graphics FA (3) AR ARC
An introduction to fundamental "critical thinking" and graphic communication skills in architecture.

ARC 2211 Introduction to Architecture HP FA (3) AR ARC
Overview of the built environment from prehistory through the Middle Ages. Buildings and cities in their geographical, topographical, political, aesthetic, social, technological and economic context.

ARC 2701 Architectural History I HP FA (3) AR ARC
Overview of the built environment from the Middle Ages to the present. Buildings and cities in their geographical, topographical, political, aesthetic, social, technological and economic context.

ARC 4754 The City 6A MW (3) AR ARC
This course examines the history of the city, as both idea and reality, with a particular focus on Western cities, and the 20th century. The course is open to undergraduates and students in the Graduate Architecture Program.

ARC 4831 Selected Topics in Architecture and Community Design (2-4) AR ARC
Variable topics will be offered for pre-professional studies for students in the Liberal Studies Major/ALA Degree Program and undergraduates.

ARC 5175 Computer Technology (3) AR ARC
Survey of major schools of thought in design theory, methods of design and problem-solving, and design research. The nature and different types of problems. Traditional approaches to problem-solving and design in architecture; recent systematic as well as intuitive approaches to problem-solving based on developments in other fields. Scientific method; the systems approach and design.

ARC 5256 Design Theory (3) AR ARC
PR: DPR. Survey of major schools of thought in design theory, methods of design and problem-solving, and design research. The nature and different types of problems. Traditional approaches to problem-solving and design in architecture; recent systematic as well as intuitive approaches to problem-solving based on developments in other fields. Scientific method; the systems approach and design.

ARC 5361 Core Design I (9) AR ARC
PR: ARC 5361, CC. Second of a two semester Design Fundamentals/Design Graphics sequence focusing on design abstractions and analysis of the factors influencing conceptual design. Emphasis is placed on ordering principles, pattern recognition and utilization, and figure-ground relationships. Development of craftsmanship, drawing as a means of design, and perceptual acuity are stressed.

ARC 5362 Core Design II (9) AR ARC
PR: ARC 5361, CC. Second of a two semester Design Fundamentals/Design Graphics sequence focusing on synthesis of design concepts and application of ordering principles in architectural design. Emphasis is placed on developing an understanding and awareness of architectural elements and compositions. Students examine the work of significant architects and their influence on design. The exploration of available software tools, modeling, rendering, documentation, diagramming, and model studies are stressed.

ARC 5363 Core Design III (6) AR ARC
PR: ARC 5362, ARC 5487, ARC 5587, ARC 5731. CO-ARC 5560. Study of the various phases of the building delivery and design process, and of different approaches to ordering that process in a systematic fashion. The student will use one such systematic approach in the investigation and development of design solutions for a project of moderate scale and complexity. Studies of built form, ordering principles, mass/void relationships,
scale and proportion, color, texture, contextual relationships, meaning/imagery, and building technology (awareness of structural organization, services networks, construction processes and materials). Aspects of human behavior as design determinants.

ARC 5363 Advanced Design A (6) AR ARC
PR: ARC 5363. CP: ARC 5588. ARC 5467. Application of orderly design processes to building projects of moderate complexity and scale. Continued investigation of the relationship between human behavior and the environment. Analysis and integration of site relationships into the development of design solutions. Legal aspects of zoning, building codes, and regulations regarding access for accessibility, fire escape, etc.

ARC 5365 Advanced Design B (6) AR ARC
PR: ARC 5363. CP: ARC 5588. ARC 5467. Investigation of the interaction between user requirements, environmental determinants, site and urban context conditions, technological factors, and design intentions in the development of design solutions for projects of medium scale and complexity. The analysis, design, and coordination of the various resulting systems, including structural, circulation, service networks, space zoning and use, environmental control systems at the interface between interior and exterior of a building. Representation of these relationships and systems in diagrams and models, and their manifestation in design and construction details.

ARC 5366 Introduction to Technology (4) AR ARC
PR: ARC 5363. CP: ARC 5588. ARC 5467. Design of multi-purpose buildings of medium large scale and complexity. Issues of community and neighborhood design as they relate to the life and use of buildings. Restoration and adaptive re-use of existing historic buildings. Focus on thinking through as well as documenting the complete building system and process.

ARC 5467 Materials and Methods of Construction (4) AR ARC
PR: ARC 5470. CP: ARC 5466. Overview of primary materials, and construction systems which comprise building structure and enclosure. Emphasis on interface and connection of elements and assemblies, relative to climate, assembly processes, costs, codes, and craftsmanship. Lab sessions include field trips to manufacturing facilities, construction sites, and preparation of drawings and models of assemblies.

ARC 5470 Introduction to Technology (3) AR ARC
Introduction to architectural technology, including structures, materials and methods of construction, and environmental controls. Overview of building systems and components and their integration into architectural design projects.

ARC 5587 Structures I (3) AR ARC
PR: Calculus, Physics, and ARC 5470, CC. Review of static and mechanical principles of materials. Analysis and evaluation for appropriate selection of structural systems and elements. Analysis and design of timber and steel structures, based on moment, shear, and deflection. Fundamentals of wind and seismic design as they apply to wood and steel construction. Truss analysis, beam analysis, and behavior.

ARC 5588 Structures II (3) AR ARC

ARC 5689 Environmental Technology (4) AR ARC
PR: Physics, ARC 5470, CC. Comprehensive review of mechanical, electrical, and plumbing systems for buildings. Energy utilization, heating and cooling, water delivery and waste removal, fire protection, illumination, ventilation systems, and acoustics. Lab exercises include computer simulations, illumination studies, thermal performance studies.

ARC 5731 Architectural History I (3) AR ARC
Overview of the built environment from prehistory through the Middle Ages. Buildings and cities in their geographical, topographical, political, aesthetic, social, technological and economic context. Varieties of methodological approaches to the analysis of historical architecture. The focus will be on the built environment of Europe and the Mediterranean basin.

ARC 5732 Architectural History II (3) AR ARC
Overview of the built environment from the Renaissance to the present. Buildings and cities in their geographical, topographical, political, aesthetic, social, technological, and economic context. Study of various methodological approaches to the analysis of historic architecture, and development of student’s own approach. Emphasis will be on the built environment of Europe and America.
design discipline. Students will explore graphic styles from the turn of the century to contemporary works, highlighting the innovations of influential designers throughout history.

ARH 4744 Selected Topics In The History of Film (4) VP ART
PR: ARH 2050 or EUH 2011 recommended but not required. A comprehensive study of the art and cultures of ancient Egypt and the Near East, from the prehistoric period through the conquests of Alexander the Great.

ARH 4730 Greek Art (4) VP ART
PR: ARH 2050 or EUH 2011 recommended but not required. A comprehensive study of ancient Greek sculpture, painting, architecture, and other artistic media from the Bronze Age through the Hellenistic period.

ARH 4731 Roman Art (4) VP ART
PR: ARH 2050 or EUH 2011 recommended but not required. A comprehensive study of ancient Roman sculpture, painting, architecture, and other artistic media from the founding of Rome through the reign of Constantine.

ARH 4710 History of Photography 6A (4) VP ART
PR: ARH 2051. Comprehensive overview of the history of photography from its inception to the present day with an emphasis on the relationship of photography to the visual arts and popular culture.

ARH 4721C History of Printmaking 6A (3) VP ART
The history of Western printmaking from the Middle Ages to contemporary times, with an emphasis on artmaking technology and its historical, cultural, theoretical, and critical analytical capabilities. The course is open to majors and non-majors. It is not repeatable for credit.

ARH 4724 History of Graphic Design 6A (4) VP ART
This course surveys the design profession and the graphic design discipline. Students will explore graphic styles from the
ART 3310C Intermediate Drawing (3) VP ART  
PR: ART 2201C. Majors Only. An extension of the skills and concepts introduced in Beginning Drawing with an emphasis on individual experimentation and the development of advanced critical and technical skills in the discipline. Repeatable up to 15 hours.

ART 3380C Selected Topics in Drawing (3) VP ART  
PR: ART 2203C, ARH 2050, ARH 2051, ART 2301C, ART 3310C. Majors Only. Selected Topics in Drawing is an intermediate course providing focused exploration of content specific to the discipline. It furthers the development of skills and critical discourse in the field. Majors only. Repeatable up to 15 hours.

ART 3401C Intermediate Printmaking (3) VP ART  
PR: ART 2201C, ART 2203C, ART 2301C, ART 2400C, ART 3310C, ARH 2050, ARH 2051. This course concentrates on developing intermediate skills in printmaking with particular emphasis on conceptual topics. The course is intended for majors. Repeatable up to 15 hours.

ART 3461C Selected Topics in Printmaking (3) VP ART  
PR: ART 2203C, ARH 2050, ARH 2051, ART 2301C, ART 3310C, ART 2400C, ART 3401C. Majors Only. Selected Topics in Printmaking is an intermediate course providing focused exploration of content specific to the discipline. It furthers the development of skills and critical discourse in the field. Majors only. Repeatable up to 15 hours.

ART 3485 Digital Printmaking (4) VP ART  
PR: ART 3612C or ART 2400C. Majors Only. An investigation of printmaking using the computer as a design interface between electronic and traditional printmaking processes. Repeatable up to 9 hours.

ART 3513C Selected Topics in Painting (3) VP ART  
PR: ART 2203C, ARH 2050, ARH 2051, ART 2301C, ART 3310C, ART 2500C, ART 3530C. Majors Only. Selected Topics in Painting is an intermediate course providing focused exploration of content specific to the discipline. It furthers the development of skills and critical discourse in the field. Majors only. Repeatable up to 15 hours.

ART 3530C Intermediate Painting (3) VP ART  
PR: ART 2201C, ART 2203C, ART 2301C, ART 2500C, ART 3310C, ARH 2050, ARH 2051. An extension of the skills and concepts introduced in Beginning Painting with an emphasis on individual experimentation and the development of advanced critical and technical skills in the discipline. Repeatable up to 15 hours.

ART 3612C Beginning Electronic Media (3) VP ART  
PR: Majors Only. An introductory exploration of the issues and practices involved in the creation of experimental computer art. The course focuses on an interdisciplinary approach to electronic and traditional electronic design processes. Repeatable up to 15 hours.

ART 3613C Intermediate Electronic Media (3) VP ART  
PR: ART 2201C, ART 2203C, ART 2301C, ART 3310C, ART 3612C, ARH 2050, ARH 2051. An intermediate exploration of the issues and practices involved in the advanced use of electronic media in the field of experimental computer art. The course focuses on an interdisciplinary approach to electronic media while developing individual creative growth. Repeatable up to 15 hours.

ART 3635 Selected Topics in Electronic Media (3) VP ART  
PR: ART 2203C, ARH 2050, ARH 2051, ART 2301C, ART 3310C, ART 3612, ART 3631C. Majors Only. Selected Topics in Electronic Media is an intermediate course providing focused exploration of content specific to the discipline. It furthers the development of skills and critical discourse in the field. Majors only. Repeatable up to 15 hours.

ART 3704C Intermediate Sculpture (3) VP ART  
PR: ART 2201C, ART 2203C, ART 2301C, ART 2701C. ART 3310C, ARH 2050, ARH 2051. This course expands upon the principles and processes introduced in Beginning Sculpture, developing a higher level of technical competence and critical understanding. Repeatable up to 15 hours.

ART 3712C Multiples, Molds, and Bronzecasting (3) VP ART  
PR: ART 2701C and ART 3704C. Majors Only. Continued studies and projects in sculpture with an emphasis on the nature of multiples, molds, and their relationship to traditional making and bronzecasting. This course may not be repeated for credit. The conceptual implications of the multiple will be taught through reading, lecture, discussion and demonstration.

ART 3735C Selected Topics in Sculpture (3) VP ART  
PR: ART 2203C, ARH 2050, ARH 2051, ART 2301C, ART 3310C, ART 2701C, ART 3704C. Majors Only. Selected Topics in Sculpture is an intermediate course providing focused exploration of content specific to the discipline. It furthers the development of skills and critical discourse in the field. Repeatable up to 15 hours.

ART 3761C Intermediate Ceramics (3) VP ART  
PR: ART 2201C, ART 2203C, ART 2301C, ART 2750C, ART 3310C, ARH 2050, ARH 2051. Intermediate problems in ceramics are explored through the application of methods and media and the development of individual concepts. Repeatable up to 15 hours.

ART 3781C Selected Topics in Ceramics (3) VP ART  
PR: ART 2203C, ARH 2050, ARH 2051, ART 2301C, ART 3310C, ART 3500C. ART 3781C. Selected Topics in Ceramics is an intermediate course providing focused exploration of content specific to the discipline. It furthers the development of skills and critical discourse in the field. Majors only. Repeatable up to 15 hours.

ART 3843C Site, Installation, and Performance (3) VP ART  
PR: ART 2701C and ART 3704C. Majors Only. Continued studies and projects in sculpture with an emphasis on site-specific sculpture, installation and performance. A critical and cultural awareness of contemporary issues and media in sculpture will be developed through studio projects assigned readings, discussions, critiques and demonstrations. The course may not be repeated for credit.

ART 3935 Studio Techniques: Selected Projects (2) VP ART  
PR: DPR. Concentration in specialized technical and process. Repeatable.

ART 3939 The Real World (3) VP ART  
Restricted to studio majors. Offers students the opportunity to analyze their experiences as art majors and explore options available to visual artists upon completion of their degree.

ART 4320C Advanced Drawing (3) VP ART  
PR: 9 hours of Intermediate courses in the discipline and a 3.25 major GPA or DPR. Majors Only. Continued projects in drawing. Repeatable.

ART 4402C Advanced Printmaking (3) VP ART  
PR: 9 hours of Intermediate courses in the discipline and a 3.25 major GPA or DPR. Majors Only. This course is designed as an advanced printmaking study and emphasizes content and meaning in visual imagery. The student is encouraged to work in a specific printmaking medium (intaglio, relief, lithography or screen printing) and develop a cohesive series of images.

ART 4520C Advanced Painting (3) VP ART  
PR: 9 hours of Intermediate courses in the discipline and a 3.25 major GPA or DPR. Majors Only. Continued projects in painting. Repeatable.

ART 4614C Advanced Electronic Media (3) VP ART  
PR: 9 hours of Intermediate courses in the discipline and a 3.25 major GPA or DPR. Majors Only. Advanced exploration of issues and practices involved in the creation of experimental computer art. The course continues as interdisciplinary approach to electronic media with a focus on individual and group projects. Repeatable.

ART 46 Computer Animation (4) VP ART  
PR: 9 hours of Intermediate courses in the discipline and a 3.25 major GPA or DPR. Majors Only. Advanced exploration of issues and practices involved in the creation of experimental computer art. The course continues as interdisciplinary approach to electronic media with a focus on individual and group projects. Repeatable.

ART 4606 Theme Studio (3) VP ART  
PR: Majors Only. All preparation courses plus course in Studio Workshop I.

ART 4814 Paris Art Studio (3) VP ART  
PR: ART 2201C or equivalent. This course will explore contemporary and historic Paris as a subject and source for artmaking, drawing upon a range of concepts and strategies that emphasize imaginative encounters with its space, streets, museums, architecture and people.

ART 4800 Directed Reading (2-3) VP ART  
PR: CI. Registration by contract only. A course of study in an area of special concern governed by student demand, instructor interest and/or department requirements. Registration is by contract only. Repeatable.
ART 4905 Directed Study (1-4) VP ART
PR: CI, DPR. Registration by contract only. Independent studies in the various areas of Visual Arts. Course of study and credits must be assigned prior to registration. Repeatable.

ART 4925 Media Workshop: Design Production (3) VP ART
PR: Graphic design majors only. This upper level technology course will develop in-depth understanding of graphic software and print production techniques. Students will review software programs, file preparation requirements, and print production standards.

ART 4930 Selected Topics In Art (2-4) VP ART
PR: DPR. The content of this course will be determined by student demand and instructor interest. Open University offerings under this number may not be counted for degree credit for art majors. Repeatable.

ART 4940 Extended Studies (1-4) VP ART
Extended Studies requires students to engage in art-related activities that expand upon their traditional academic experience. It is by contract and may involve internship and/or foreign studies. The course is restricted to majors. Not repeatable.

ART 4970C Senior Thesis (4) VP ART
PR: DPR. CI. The creation of a coherent body of advanced level artwork that is supported by a written document describing processes working procedures, research, context and content of the artwork itself. The course is restricted to majors, and is designated as an S.F.A. candidate.

ART 5390C Drawing (4) VP ART

ART 5422C Lithography (4) VP ART
PR: ART 4402C, CI, DPR. Advanced problems in various lithographic techniques. Emphasis on individual creative expression. Repeatable.

ART 5448C Intaglio (4) VP ART
PR: CI. Registration by contract only. Investigations into more complex intaglio processes including photoengraving and color printing procedures. Emphasis on personal conceptual development in graphic media.

ART 5580C Painting (4) VP ART
PR: CI, DPR. Registration by contract only. Research in painting.

ART 5740C Sculpture (4) VP ART

ART 5790C Ceramics (4) VP ART
PR: ART 2705C, DPR. Advanced problems in the various ceramic techniques, including throwing and glaze calculation. Repeatable.

ART 5910 Research (1-5) VP ART
PR: CI, DPR. Registration by contract only. Repeatable.

ART 5936 Studio Techniques: Selected Projects (2) VP ART
PR: DPR. Concentration in specialized media or processes. Repeatable.

ASH 2270 Southeast Asian History HP AF (3) AS HTY
This course examines the origins and development of the major Southeast Asian cultures over the past two millennia, focusing particularly on the transformation of small communities into modern states and the factors that facilitated this process.

ASH 3404 Modern China SS HP AF (4) AS HTY
Political, economic, and social history of China from the time of the first major Western contacts (17th-18th Centuries) through the consolidation of socialism in the late 1950’s, and the Great Leap Forward.

ASN 3012 Japan Today SS (3) AS INT
Area study courses are multi-disciplinary in nature and deal with one or more countries of a region. Each course combines some measure of political, economic, historical, religious, geographic, anthropological, and sociological analysis in dealing with salient features and current problems.

ASN 3014 China Today AF (3) AS INT
Area study courses are multi-disciplinary in nature and deal with one or more countries of a region. Each course combines some measure of political, economic, historical, religious, geographic, anthropological, and sociological analysis in dealing with salient features and current problems.

ASN 3030 The Middle East AF (3) AS INT
Area study courses are multi-disciplinary in nature and deal with one or more countries of a region. Each course combines some measure of political, economic, historical, religious, geographic, anthropological, and sociological analysis in dealing with salient features and current problems.

AST 2003 Astronomy of the Solar System NS (4) AS AST
Introduction to the Astronomy of the Solar System. No Physics background assumed. Topics covered include properties of light, stellar coordinates, timekeeping, eclipses, formation and dynamics of the solar system, properties of the sun and planets, sketches of exploration of the moon, life on other worlds. This course is complementary to but independent of AST 2004. Either may be taken before the other or taken by itself.

AST 2004 Stellar Astronomy and Cosmology NS (4) AS AST
Introduction to Astrophysics and the structure of the universe. No Physics background assumed. Topics covered include properties of light, stellar coordinates, measurement of the physical properties of stars, formation, structure and evolution of stars, normal and peculiar galaxies, cosmology. This course is complementary to but independent of AST 2003. Either may be taken before the other or taken by itself.

AST 2032C Illustrative Astronomy (3) AS AST
Constellations, use of small telescopes, etc., apparent motions of celestial objects, comets and meteors, seasons, weather. Current events in the space program. Planetarium and open sky demonstrations.

AST 3033 Contemporary Thinking in Astronomy NS (3) AS AST
PR: Junior or Senior Standing or CI. Seminar designed to assist the layman, with no scientific background, in comprehending contemporary developments in Astronomy. Necessary background material is provided by the instructor and a text. Topics covered in recent years include the space program, pulsars, x-ray astronomy, black holes, extra-terrestrial life, interacting galaxies, cosmology.

AST 3044 Archaeoastronomy (3) AS AST
PR: Jr. or Sr. Standing or CI. Astronomical concepts and observational techniques used by prehistoric/ancient peoples for detecting change of seasons, constructing calendars, predicting eclipses, etc. Particular attention is given to Stonehenge, and to works of N.A. Indians, the Maya and Aztecs, and the Egyptians. Lec.-Lab.

AST 3652 Navigation (3) AS AST
PR: Some knowledge of geometry, algebra, and trigonometry. Timekeeping, use of sextant, constellations, celestial navigation with minimum equipment, spherical astronomy.

AST 3930 Selected Topics in Astronomy (1-4) AS AST
PR: CI. Course content will depend upon the interest of the faculty member and student demand.

AST 5506 Introduction to Celestial Mechanics (3) AS AST
PR: MAC 2313 or MAC 2283 and some knowledge of differential equations, or CI. The two-body problem, introduction to Hamiltonian systems and canonical variables, equilibrium solutions and stability, elements of perturbation theory.

AST 5932 Selected Topics in Astronomy (1-4) VP ART
PR: Senior or advanced junior standing or CI. Extensive coverage of special topics to suit needs of advanced students.

BCH 3023 Introductory Biochemistry (3) AS CHM
PR: CHM 2200 or CHM 2211 and BSC 2210. Introduction to the chemistry and intermediary metabolism of biologically important substances. Lec.

BCH 3023L Basic Biochemistry Laboratory (2) AS CHM
CR: BCH 3023. Practical work in determination and characterization of important biomolecules. Lec.-lab.

BCH 4034 Advanced Biochemistry (3) AS CHM
PR: BCH 3023. An advanced undergraduate course emphasizing such topics as metabolic regulation, DNA and RNA structure and function, receptors, channels, antibodies, and contraction.

BCH 5045 Biochemistry Core Course (3) AS CHM
PR: Either CHM 2211, CHM 2211L, and CHM 3400 or CHM 4410 or graduate standing. A one-semester survey course in biochemistry for graduate students in chemistry, biology, and other appropriate fields and for particularly well-qualified undergraduates. Lec.

BCH 5105 Biochemistry Laboratory Rotations (1-3) AS CHM
A course in which first year graduate students rotate through selected professor's laboratories to learn techniques, become familiar with ongoing research in the Department and facilitate the training of graduate students. Lec.
BME 5040 Pharmaceutical Engineering (2) EN ECH
PR: Senior or Graduate standing in Engineering or CI. Introduction to pharmaceutical engineering, including dosage forms (tablets, capsules, powders, liquids, topical forms, and aerosols), excipients, regulatory issues, clinical studies, and good manufacturing practices.

BME 5320 Theory and Design of Bioprocesses (3) EN ECH
PR: Senior standing in engineering or CI. Open to majors and non-majors with CI. Introduction to biotechnology, including applied microbiology, enzyme technology, biomass production, bioreactor design, and transport processes in biosystems.

BME 5748 Selected Topics in Biomedical Engineering (1-3) EN ECH
Selected topics in biomedical engineering, including biomedical engineering, biomedical materials, biodynamics of circulation, separation processes in biomedical systems, and artificial organ systems.

BME 5910 Directed Research in Biomechanics (1-3) EN ECH
PR: CI. Directed research in an area of biomedical engineering or engineering biotechnology.

BME 5937 Selected Topics in Biomedical Engineering (1-3) EN ECH
PR: Senior or GS standing in Engineering or CI. Open to non-engineering students with CI. Selected topics in biomedical engineering, including biomedical engineering, biomedical materials, biodynamics of circulation, separation processes in biomedical systems, and artificial organ systems. May be taken by non-engineering students with CI. Repeatable as subjects vary.

BMS 4402 Principles of Human Pharmacology NS (3) ME MSG
Not available on S/U basis. Pharmacodynamics (effects), pharmacokinetics (absorption, distribution, metabolism, excretion) and side effects/toxicity of drugs. Designed to provide basic understanding of mechanism of drug action resulting from modifying biologic processes.

BOT 3373C Vascular Plants: Form and Function (4) AS BIO

BOT 3506 Medical Botany (3) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L, CHM 2210, MAC 1105 or higher-level MAC course or STA 2023. CP: PCB 3023 or PCB 3043 or PCB 3063 or PCB 3712. Study of agents that are produced by plants and that are toxic or psychoactive in humans or are useful as remedies. Lecture only.

BOT 4152C Field Botany (3) AS BIO
PR: BOT 3373C. Identification and classification of native and naturalized flowering plants of Florida including historical, climatic and floristic aspects of plant communities. Conducted largely in the field.

BOT 4223C Plant Anatomy (3) AS BIO
PR: BOT 3373C and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023. CP: PCB 3023 or PCB 3043 or PCB 3063 or PCB 3712 & CHM 2211. Comparative studies of tissue and organ systems of fossil and present-day vascular plants. Functional and phylogenetic aspects stressed. Lect.-lab.

BOT 4434C Mycology (3) AS BIO
PR: BOT 3373C or MCB 3020C and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023. CP: PCB 3023 or PCB 3043 or PCB 3063 or PCB 3712 & CHM 2211. A survey of the fungi with emphasis on their taxonomy, morphology, physiology and economic importance. Lect.-lab.

BOT 4503 Plant Physiology (3) AS BIO
PR: BOT 3373C and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023 and PHY 2053. CP: PCB 3043 or PCB 3063 or PCB 3712 & CHM 2211. Fundamental activities of plants; absorption, translocation, transpiration, metabolism, growth and related phenomena. Lecture only.

BOT 4503L Plant Physiology Laboratory (1) AS BIO
CP: BOT 4503. Laboratory portion of Plant Physiology.

BOT 4810C Economic Botany (3) AS BIO
PR: BOT 3373C. Study of the uses of plants by man for food, chemicals, fiber, fuel, and medicine.

BOT 5185C Marine Botany (4) AS BIO
PR: BOT 3373C, PCB 3043 and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023 and CI. CP: CHM 2211. A functional course in marine plants with emphasis on ecology and functional morphology. Fieldwork will stress the ecological aspects of plants in the subtropical marine environment of Florida. Fieldwork required. Lecture and Laboratory.

BOT 5725C Evolution of Flowering Plants (3) AS BIO
PR: BOT 3373C and BOT 4152C or CI. A study of the evolution and phylogeny of the Angiosperms; the origin and nature of early angiosperms, “primitive” angiosperms today; evolutionary processes leading to the origin of genera, families and orders, trends of specialization, angiosperms today; cell structure and function, respiration, photosynthesis, mitosis and meiosis, genetics and gene expression.

BSC 1005 Principles of Biology For Non-Majors NS (3) AS BIO
No credit for Biology majors. Lectures and demonstrations of selected biological principles, usually taught by television.

BSC 2010 Biology I - Cellular Processes NS (3) AS BIO

BSC 2010L Biology I Cellular Processes Laboratory (1) AS BIO
CR: BSC 2010. Laboratory portion of Biology I Cellular Processes relating to cellular and subcellular structure and function. Mitosis, meiosis, and Mendelian genetics will be stressed.

BSC 2011 Biology II - Diversity NS (3) AS BIO

BSC 2011L Biology II Diversity Laboratory (1) AS BIO
CR: BSC 2011. Laboratory portion relating to organismal structure and function. Microscopy, as well as, plant and animal development will be stressed.

BSC 2022 Biology of Aging NS (3) AS BIO
An introduction to the biology of aging. Emphasis will be placed on understanding basic principles of biology relevant to time and the aging process which begins at birth. May be taken by majors for free elective credit.

BSC 2025 Food: Personal and Global Perspectives NS (3) AS BIO
May be taken by biology majors for free elective credit. The application of basic biological principles to human nutritional problems; to learn how various cultures achieve adequate nutrition and how environmental changes impact both personal and global nutrition.

BSC 2030 Save the Planet: Environmental Sciences NS (3) AS BIO
Credit will be given for BSC 2030 or BSC 2050, but not both. An introduction to environmental sciences using mass communications and independent study. Emphasis will be placed on understanding basic principles of ecology relevant to problems and topics of the earth’s environment. May be taken by majors for free elective credit.

BSC 2035 Sex and Today’s World NS (3) AS BIO
The application of basic biological principles to female and male sexual behavior and sexual orientation; current social problems are treated from a biological perspective. May be taken by majors for free elective credit.

BSC 2037L Environment NS (3) AS BIO
Credit will be given for BSC 2030 or BSC 2050, but not both. The application of basic scientific principles to global environmental problems; how human activities impact the environment. May be taken by majors for free elective credit.

BSC 2085 Anatomy and Physiology I for Nursing and other Healthcare Professionals NS (3) NU NUR
CR: BSC 2085L. Introduction to the normal structure, function and selected pathologic conditions for physiologic systems. Focus on understanding how the body functions in preparing for careers in nursing or health-related professions.

BSC 2085L Anatomy and Physiology Lab I for Nursing and other Healthcare Professionals (1) NU NUR
CR: BSC 2085. Laboratory exercises and virtual dissections linked to the basic content of Anatomy & Physiology I for Health Professionals.

BSC 2086 Anatomy and Physiology II for Nursing and other Healthcare Professionals NS (3) NU NUR
PR: BSC 2085 and BSC 2085L. CP: BSC 2086L. Introduction of normal structure, function and selected pathologic conditions for physiologic systems. Focus on understanding how the body functions in preparing for careers in nursing or health-related professions.

BSC 2086L Anatomy and Physiology Lab II for Nursing and other Healthcare Professionals (1) NU NUR
PR: BSC 2085L. CP: BSC 2086. Laboratory exercises and virtual dissections linked to the basic content of Anatomy & Physiology II for Health Professionals.

BSC 2087C Human Anatomy and Physiology of (4) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L and CHM 2045. May be taken by majors for free elective credit only. Basic
biochemistry, cell structure and function, tissues, anatomical terminology, histology and physiology of the integumentary, skeletal, muscular, and nervous systems. Lecture and Laboratory.

BSC 2094C Human Anatomy and Physiology II (4) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L, BSC 2093C, and CHM 2045. May be taken by majors for free elective credit only. Anatomy and physiology of the autonomic nervous, endocrine, circulatory, lymphatic, immune, respiratory, digestive, excretory, and reproductive systems. Lecture and Laboratory.

BSC 2932 Selected Topics in Biology (1-4) AS BIO
The course content will depend on student demand and instructor’s interest.

BSC 2933 Honors Seminar II: Philosophy and Ethics of Science (3) AS BIO
PR: BSC 2931, BSC 2931L, BSC 2932, & CHM 2045 & CL. Enrollment is limited to Department of Biology Honors Students. Introduction to the nature of science. Historical perspectives, modes of reasoning, science vs. pseudoscience, science as an intellectual process, ethics, and resolving dilemmas.

BSC 2934 Honors Seminar III: Scientific Approaches (3) AS BIO
PR: BSC 2933. CL. Enrollment is limited to Department of Biology Honors Students. The course will begin to familiarize students with the process of conducting scientific research.

BSC 2938 Honors Seminar I (1) AS BIO
PR: BSC 2010, BSC 2010L & CHM 2045. CR: BSC 2011, BSC 2011L. Enrollment is limited to Department of Biology Honors Students. The course will begin to familiarize students with the process of conducting scientific research.

BSC 3312 Marine Biology (3) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L & CHM 2045, CHM 2046 & MAC 1105 or higher-level MAC course, or STA 2023. CP: PCB 3023 or PCB 3043 or PCB 3063 or PCB 3712. A survey of the marine environment, the types of organisms found inhabiting a variety of marine habitats, and the adaptations of the organisms to those habitats. Emphasis is placed on shallow water Florida environments. Lecture only.

BSC 4057 Environmental Issues MW (3) AS BIO
Not for major’s credit. Study of biological, economic, ethical, legal, political and social issues relating to current environmental problems.

BSC 4313C Advanced Marine Biology (4) AS BIO
PR: BSC 3312C. A detailed analysis of marine environment in the Tampa Bay or surrounding area. Field and laboratory work will provide direct experience with the system.

BSC 4905 Independent Study (1-4) AS BIO
PR: CI. S/U only. Major standing and 3.0 GPA required. May be taken by majors for free elective credit. Specialized independent study determined by the student’s interests. The written contract required by the Department of Biology specifies the regulations governing independent study.

BSC 4910 Undergraduate Research (1-4) AS BIO
PR: CHM 2210 and MAC 1105 or higher MAC course or STA 2023 or CI. CP: PCB 3023 or PCB 3043 or PCB 3063 or PCB 3712 and CHM 2211. S/U only. Junior standing and 3.0 GPA required. Individual investigation with faculty supervision. Written contract by Department is necessary prior to registration.

BSC 4932 Honors Seminar IV (1) AS BIO
PR: BSC 2934 and BSC 4910 or MCB 4910. CL. CP: CHM 2211. The course serves as a formal introduction to the presentation of scientific research. It is taken in the semester prior to completion of a student’s own research project and the writing of the Biology Honors Thesis.

BSC 4933 Selected Topics In Biology (1-4) AS BIO
PR: CI. The course content will depend on student demand and instructor’s interest.

BSC 4937 Seminar in Marine Biology (2) AS BIO
PR: BSC 3312C and CHM 2211. A detailed analysis of marine environment in the Tampa Bay or surrounding area. Field and laboratory work will provide direct experience with the system.

BSC 4938 Honors Seminar II: Philosophy and Ethics of Science (3) AS BIO
PR: BSC 2933. CL. Enrollment is limited to Department of Biology Honors Students. Introduction to the nature of science. Historical perspectives, modes of reasoning, science vs. pseudoscience, science as an intellectual process, ethics, and resolving dilemmas.

BSC 4940 Internship: Business Education (1-12) ED EDV
CR: BTE 4936. S/U only. One full semester of internship in a public or private school. In special programs where the internship experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9 to 12 semester hours.

BTE 4928 Field-Based Seminar in Business Education (3) ED EDV
S/U only. Supervised field experience and orientation to broad field business education. Specifically designed to be preparatory as the internship.

BTE 5111 Curriculum Construction: Business Education (3) ED EDV
Curriculum scope, the process of planning and organizing instructional programs with emphasis on task analysis and process evaluation.

BUL 3320 Law And Business I (3) BA GBA
This course covers the nature of legal and societal institutions and environments, and major aspects of public, private, UCC and related business law.

BUL 3321 Law And Business II (3) BA GBA
PR: BUL 3320. Legal problems in marketing of goods, nature of property, sales of personal property, securing of credit granted, and use of negotiable instruments.

BUL 5332 Law and the Accountant (3) BA GBA
PR: BUL 3320 or CL. A comprehensive study of commercial law as it affects the practice of accounting.

CAP 4034 Computer Animation Fundamentals (3) EN ESB
PR: EEC 4851C. This course is about computer animation. Topics include storyboarding, camera control, hierarchical character modeling, inverse kinematics, keyframing, motion capture, dynamic simulation, and facial animation.

CAP 4401 Image Processing Fundamentals (3) EN ESB
PR: EEL 4851C. Practical introduction to a range of fundamental image processing algorithms. Use of the C language in algorithm construction. Extensive programming, with emphasis on image analysis and transformation techniques. Image transformation and manipulation.

CAP 4410 Computer Vision (3) EN ESB
PR: EEL 4851C. Introduction to topics such as image formation, segmentation, feature extraction, matching, shape recovery, texture analysis, object recognition, and dynamic scene analysis. Non-majors by special permission and demonstration of required skills.

CAP 4660 AI Robotics (3) EN ESB
PR: EEL 4851C; CR: COT 4400. Methods for mobile robots (ground/aerial/underwater). Understand: (13) paradigms of AI robotics; (2) major ways to organize and combine behaviors in behavior-based systems; (3) major path planning; (4) simultaneous localization and mapping (SLAM) algorithms.

CAP 5400 Digital Image Processing (3) EN ESB
PR: EEL 4851C or GS. Image formation, sources of image degradation, image enhancement techniques, edge detection operators and threshold selection, low-level processing algorithms for vision, image data compression.

CAP 5625 Introduction to Artificial Intelligence (3) EN ESB
PR: EEL 4851C or GS. Basic concepts, tools, and techniques used to produce and study intelligent behavior. Organizing knowledge, exploiting constraints, searching spaces, understanding natural languages, and problem solving strategies.

CAP 5682 Expert And Intelligent Systems (3) EN ESB
PR: EEL 4851C or GS. Basic concepts, techniques and tools for the design and implementation of expert and intelligent systems. Knowledge representation, inference methods, knowledge acquisition methods, and some advanced concepts. Tools to facilitate construction of expert and intelligent systems.
CBH 4004 Comparative Psychology (3) AS PSY
PR: PSY 3201 and a grade of C or better or CI. The study of the evolution of behavior, similarities, and differences in capacities for environmental adjustment and for behavioral organization among important types of living beings.

CCE 4034 Construction Management (3) EN EGX
PR: EGN 3613C. Fundamentals of construction management. Topics include: general definitions, organizational roles, types of contracts, analysis of labor and equipment, cost estimating, contractor cash flow analysis, planning and scheduling, project control, construction administration, quality and safety management, and use of computer software in construction management.

CCE 5035 Construction Management & Planning (3) EN EGX
PR: EGN 3613C. Fundamentals of construction management. Topics include: general definitions, organizational roles, types of contracts, analysis of labor and equipment, cost estimating, contractor cash flow analysis, planning and scheduling, project control, construction administration, quality and safety management, and use of computer software in construction management.

CCJ 3003 Crime and Justice in America SS (4) AS CJP
May be taken by both majors and non-majors for credit. This course is a non-technical survey of the nature of crime in the United States and the ways in which our society seeks to deal with criminal and victim behavior.

CCJ 3024 Survey of the Criminal Justice System SS (3) AS CJP
An introduction to the structure and operation of law enforcement, prosecution, the courts, and corrections. Also includes brief coverage of different topics in criminology.

CCJ 3610 Theories of Criminal Behavior (3) AS CJP
PR: Junior standing, CCJ 3024 or CI. Provides a basic understanding of the complex factors related to crime, with concentration on principal theoretical approaches to the explanation of crime.

CCJ 3621 Patterns of Criminal Behavior (3) AS CJP
PR: Junior standing. Reviews the nature and extent of the crime problem. The course will concentrate on major patterns of offender behavior including crimes against the person, property crimes, violent crimes, economic/white collar offense, syndicated (organized) crimes, consensual crimes, female crime, political crime, and will examine criminal career data.

CCJ 3701 Research Methods in Criminal Justice I (3) AS CJP
PR: Junior standing, CCJ 3024 or CCJ 3610 or CI. Introduces the student to some of the fundamentals of knowledge-generating processes in criminal justice.

CCJ 4450 Criminal Justice Administration (3) AS CJP
PR: Junior standing, CJE 4114 or CJT 4100 or CI. This course is designed to provide an in-depth examination of both the practical and theoretical aspects of the administration of criminal justice agencies. The major focus will be on law enforcement and correctional agencies.

CCJ 4604 Abnormal Behavior and Criminality (3) AS CJP
PR: Junior standing, CCJ 3610 or CI. A systematic introduction to the relationship between mental illness and criminality, with focus on psychiatric labeling of deviant behavior and its implications for the handling of the criminal offender.

CCJ 4700 Statistical Research Methods in Criminal Justice II (3) AS CJP
PR: Junior standing, CCJ 3024 or CCJ 3610 or CI. Beginning with the scientific method, the tools commonly used to analyze criminal justice data will be emphasized. Recommended for students who intend to continue their education beyond the B.A. Required of students attending the MA program in CCJ at USF.

CCJ 4900 Directed Readings (1-3) AS CJP
PR: Junior standing, CCJ 3024, CCJ 3610, CCJ 3621, CI. S/U only. (a) Students wishing to enroll must make arrangements with a faculty member during the semester prior to actually taking the course. (b) A minimum of four CCJ courses must have been completed satisfactorily prior to enrollment. (c) First consideration will be given to Criminology majors. (d) Individual faculty members may add additional requirements at their discretion. No more than six hours of CCJ 4910 or any combination of the two will be accepted toward the minimum number of hours required for the major. This course is specifically designed to enable advanced students the opportunity to do in-depth independent study on a topic of concern and will be under the close supervision of a faculty member of the program.

CCJ 4910 Directed Research (1-3) AS CJP
PR: Junior standing, CCJ 3024, CCJ 3610, CCJ 3621, CI. S/U only. (a) Students wishing to enroll must make arrangements with a faculty member during the semester prior to actually taking the course. (b) A minimum of four CCJ courses must have been completed satisfactorily prior to enrollment. (c) First consideration will be given to Criminology majors. (d) Individual faculty members may add additional requirements at their discretion. No more than six hours of CCJ 4910 or any combination of the two will be accepted toward the minimum number of hours required for the major. This course is specifically designed to enable advanced students the opportunity to do in-depth independent study on a topic of concern and will be under the close supervision of a faculty member of the program.

CCJ 4934 Seminar in Criminology (3) AS CJP
PR: CCJ 4934 (honors section), CCJ 4910. The student, under the direction of a faculty member, will formalize, conduct, analyze, and report in writing a research project in the Department of Criminology. The course is not repeatable. Majors only.

CCJ 4940 Internship For Criminal Justice Majors (3) AS CJP
PR: Senior standing, CCJ 3024, CCJ 3610, CCJ 3621, CI. No more than 9 hours of CCJ 4940 will be accepted toward the elective hours required for the major. The internship will consist of placement with one or more of the agencies comprising the criminal justice system. This course will enable the students to gain meaningful field experience related to their future careers. The three-hour block of credit will require a minimum of ten hours of work per week during a fall or spring term, fifteen hours per week in summer, within the host agencies in addition to any written work or reading assignments. See requirements for the B.A. degree in Criminology for the number of hours required.

CCJ 4970 Honors Thesis (3) AS CJP
PR: CCJ 4934 (honors section), CCJ 4910. The student, under the direction of a faculty member, will formalize, conduct, analyze, and report in writing a research project in the Department of Criminology. The course is not repeatable. Majors only.

CDA 3011 Computer Organization for Information Technology (3)
PR: Any Physics course and CGS 3303, or CI. Elements of the computer are discussed in terms of the physical and conceptual design of memory, processors, busses, storage devices, and computer systems. Organization of the system is cast in a meta-language that captures the logical and physical nature of the computer.

CDA 3013 Computer Organization (3) EN ESB
PR: PHY 2049 or PHYS 2054 and DFR. Introduction to computer hardware, logic elements and Boolean algebra, computer arithmetic, the central processing unit, assembly language programming, input/output, and memory.

CDA 3201 Computer Logic and Design (3) EN ESB
PR: CDA 3013, COP 3514; CR: CDA 3201L and Degree Program Admission. CS&E and EE majors. Others by special permission. Advanced coverage of combinational logic circuits, analysis and synthesis of sequential circuits, testing of logic circuits and programmable logic devices.

CDA 3201L Computer Logic Design Lab (1) EN ESB
CR: CDA 3201.

CDA 4100 Computer Organization and Architecture (3) EN ESB
PR: EEL 4705. Elements of computer systems; processors, memories and switches. Register transfer representation of a computer, ALUs and their implementation. The control unit. Memory and I/O. Hardware support of operation system functions.

CDA 4203 Computer System Design (3) EN ESB
PR: CDA 3201, CDA 3201L. Design Methods, Top-Down design, Building Blocks, Instruction and addressing models, minicomputer design, interfacing.

CDA 4203L Computer System Design Lab (1) EN ESB
CR: CDA 4203. This lab introduces the student to the concept of system design. Seven projects are given including building timing circuits, memory-based and communication circuits, and microcomputer-based designs.
CDA 4205 Computer Architecture (3) EN ESB
PR: CDA 3201, CDA 3201L. Principles of the design of computer systems, processors, memories, and switches. Consideration of the register transfer representation of a computer, ALU’s and their implementation, control units, memory and I/O, and the hardware/software interaction of operating systems.

CDA 4213 CMOS-VLSI Design (3) EN ESB
PR: CDA 3201, CDA 3201L. Covers analysis and design of CMOS processing technology, CMOS logic and circuit design, layout timing and delay, and power and thermal issues. CMOS transistor theory. VLSI system design, case studies and rapid prototype chip design.

CDA 4253 Field Programmable Gate Array System Design and Analysis (3) EN ESB
PR: CDA 3201, CDA 3201L. Covers analysis and design of digital systems using VHDL simulation. Provides experience with field programmable logic gates and gate arrays. Introduces the requirements for field programmable systems; testing of circuitry, and analysis of system design.

CEG 4011 Geotechnical Engineering I (3) EN EGX
PR: EGN 3353, EGN 3331. Fundamental and experimental concepts in soil mechanics with emphasis on soil properties, soil moisture, soil structure, and shearing strength.

CEG 4011L Geotechnical/Transportation Laboratory (1) EN EGX
CR: TTE 4004. Demonstrates and experiments verifying theoretical analysis of Geotechnical and Transportation Engineering. One hour lecture and two laboratory hours per week.

CEG 4012 Geotechnical Engineering II (3) EN EGX
PR: CEG 4011. Design of retaining walls, earth slopes, foundations to control settlement, soil stabilization and foundations subjected to dynamic loads. Computer applications to soil mechanics will be covered.

CEG 4850 Capstone Geotechnical/Transportation Design MW (4) EN EGX
PR: CEG 4055, TTE 4004. CR: CEG 4012, CGN 4851, TTE 4005. A capstone geotechnical/transportation design experience for seniors in Civil and Environmental Engineering. Design of embankment and pavement bases. Comprehensive surface streets, open highway intersection and site design involving functional design, facility sizing, complete alignments and coordination, plan preparation, site layout and design, quantity summarization, bid tab planning and specification preparation.

CEN 3775cs Human Computer Interfaces for Information Technology (3) US EIT
Human-Computer Interface is the study of people, computer technology and the ways these influence each other. The basic foundations of HCI in terms of psychology, computer systems and their integration into design practice are discussed in the course.

CEN 4020 Software Engineering (3) EN ESB
PR: EEL 4851C. An overview of software engineering techniques for producing high quality software. Student will participate in a software development team.

CEN 4023 Software System Development (3) EN ESB
PR: EEL 4851C. Consideration of the methodology and object oriented programming. Team analysis, design, and development of complex software systems using software development tools.

CEN 4031 Software Engineering Concepts for Information Technology (3) US EIT
PR: EEL 4854 or CI. Concepts associated with production of high quality software through the use of software engineering concepts and practices are covered. In addition to conceptual presentations, students are required to participate in software development team projects.

CEN 4721 User Interface Design (3) EN ESB
PR: EEL 4851C. An examination of factors influencing the usability of computer system. Topics include input and output devices, graphic and multi-media interfaces, formats for interaction/communication between computer and user, and the evaluation of usability.

CEN 3102 Structures I (3) EN EGX
PR: EGN 3331. Analysis of simple structural systems, both determinate and indeterminate. Moment area theorems; influence lines; introduction to steel design.

CES 4141 Finite Element Analysis I (3) EN EGX

CES 4561 Computer Aided Structural Design (3) EN EGX
PR: CES 4141. Computer aided structural analysis and design using existing finite element program, static dynamic loading.

CES 4605 Concepts of Steel Design (3) EN EGX
PR: CES 3102. Introduction to steel design and AISC Manual of Steel Construction: Design of tension members; compression members; beams; beam columns; and bolted, welded, and riveted connections.

CES 4702 Concepts of Concrete Design (3) EN EGX

CES 4720 Capstone Structural/Materials Design (3) EN EGX
PR: EGN 3353, CES 4605, CES 4702. Capstone Materials design experience for seniors in Civil and Environmental Engineering. This course will provide students with a focused design experience aimed to design for durability and reliability.

CES 4747 Capstone Structural/Geotechnical/ Material Design MW (4) EN EGX

CES 4742 Concepts of Structural Design (3) EN EGX
PR: CES 3102. Introduction to concrete design and the ACI Building Code Requirements for reinforced concrete; design of flexural reinforcement in beams and slabs, design of shear reinforcement, design of concrete columns, and design of steel beams.

CES 4820C Timber and Masonry Design (3) EN EGX
PR: CES 3102, CES 4702. Fundamentals of timber design including beams, columns, connections and formwork. Introduction to masonry design including design of beams, walls, columns, and pilasters.

CES 5105C Advanced Mechanics of Materials I (3) EN EGX
PR: EGN 3331, MAP 2302. Analytical study of the mechanical behavior of deformable solids. Basic concepts, stress and strain transformations, special topics in beams, theory of elasticity, criteria of failure, beams on elastic foundation.

CES 5209C Structural Design (3) EN EGX
PR: CES 3102, EGN 3321. Behavior of structural components and systems when subjected to periodic dynamic loads.

CES 5715C Prestressed Concrete (3) EN EGX
PR: CI, majors only. Fundamental principles of prestressing; calculation of losses; stress analysis and design of simple beams for flexure and shear. Examples of pressures applications.

CGN 3021L Civil Engineering Laboratory (2) EN EPG
PR: CES 3102, CES 3353, CES 3365. A laboratory experience in departmental facilities including the subject areas of materials, fluids, environmental engineering, and computer assisted data acquisition.

CGN 4122 Professional and Ethical Issues in Engineering MW (3) EN EGX
The professional and ethical responsibility of engineers. The legal and ethical responsibilities of engineers in the preparation of contracts and specification. The ethics of engineer-client agreements.

CGN 4851 Concrete Construction Materials (3) EN EGX
PR: EGN 3365. Classifications and production of cements. Design and testing of concrete mixes to produce desired properties.

CGN 4905 Independent Study (1-5) EN EGX
PR: CC, S/U only. Specialized independent study determined by the student and approved by their advisor.

CGN 4911 Research in Civil Engineering and Environmental Engineering (1-4) EN EGX
PR: CC. Research course in civil and environmental engineering concepts.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>CHI 1120L</td>
<td>Modern Chinese I Laboratory</td>
<td>1</td>
<td>A lecture and problem solving course which deals with subjects related to</td>
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<td>computers and information technology. A broad range of conceptual and</td>
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<td>practical topics in IT are covered.</td>
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<tr>
<td>CHI 1121L</td>
<td>Organic Chemistry II Laboratory</td>
<td>2</td>
<td>A laboratory designed to offer additional practice using various</td>
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<td>instructional technologies and media.</td>
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<tr>
<td>CHI 4905</td>
<td>Directed Study</td>
<td>1-5</td>
<td>Departmental approval is required.</td>
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<td>Permits study options in Modern Chinese not available in the regularly</td>
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<td>scheduled curriculum at departmental discretion.</td>
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<tr>
<td>CHM 2023</td>
<td>Chemistry for Today</td>
<td>NS</td>
<td>No credit for science majors.</td>
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<td>Fundamental concepts of general, organic, and biological chemistry.</td>
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<tr>
<td>CHM 2045</td>
<td>General Chemistry I</td>
<td>NS</td>
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<tr>
<td>CHM 2046</td>
<td>General Chemistry II</td>
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<td>Fundamental concepts of general, organic, and biological chemistry.</td>
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<tr>
<td>CHM 2048L</td>
<td>General Chemistry I Laboratory</td>
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<td>No credit for science majors.</td>
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<td>Fundamental concepts of general, organic, and biological chemistry.</td>
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<tr>
<td>CHM 2210</td>
<td>Organic Chemistry I</td>
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<td>Fundamental concepts of general, organic, and biological chemistry.</td>
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<tr>
<td>CHM 2211L</td>
<td>Organic Chemistry II</td>
<td></td>
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<td>Fundamental concepts of general, organic, and biological chemistry.</td>
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<tr>
<td>CHM 2310</td>
<td>Selected Topics in Chemistry</td>
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<td>Fundamental concepts of general, organic, and biological chemistry.</td>
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<tr>
<td>CHM 3120C</td>
<td>Elementary Analytical Chemistry</td>
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<td>No credit for science majors.</td>
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<td>Fundamental concepts of general, organic, and biological chemistry.</td>
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<tr>
<td>CHM 3400</td>
<td>Elementary Physical Chemistry</td>
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<td>No credit for science majors.</td>
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<td>Fundamental concepts of general, organic, and biological chemistry.</td>
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<tr>
<td>CHM 3610</td>
<td>Intermediate Inorganic Chemistry</td>
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<td>No credit for science majors.</td>
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<td>Fundamental concepts of general, organic, and biological chemistry.</td>
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<tr>
<td>CHM 3610L</td>
<td>Intermediate Inorganic Chemistry Laboratory</td>
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<tr>
<td>CHM 4060</td>
<td>Use of the Chemical Literature</td>
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<td>No credit for science majors.</td>
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<td>Fundamental concepts of general, organic, and biological chemistry.</td>
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</table>

**UNIVERSITY OF SOUTH FLORIDA - 2007/2008 UNDERGRADUATE CATALOG**
CJC 4010 American Correctional Systems (3) AS CJP
PR: Junior standing, CCJ 3024 or CCJ 3610 or CI. Analysis of the different treatment philosophies and techniques currently in use in the field, with special attention to experimental and demonstration programs.

CJC 4106 Alternatives to Incarceration (3) AS CJP
PR: Junior standing, CCJ 3024 or CCJ 3610 or CI. This course explores a variety of alternatives to imprisoning the offender, including probation, parole, diversion, and other community-based interventions and treatment approaches.

CJE 4010 Juvenile Justice System (3) AS CJP
PR: Junior standing, CCJ 3024 or CCJ 3610 or CI. Provides coverage of the juvenile and family courts, their clientele, and the complex of human services agencies and facilities that contribute to efforts at juvenile correctional intervention.

CJE 4144 Private Security Systems (3) AS CJP
PR: Junior standing plus CJE 4114, CCJ 3024, CCJ 3610, CCJ 3621 or CI. Examines the legal and ethical aspects of private security work.

CLA 3103 Greek Civilization HP (3) AS WLE
Study of Greek Civilization from its beginning to the Roman period, with emphasis on social customs, political institutions, and daily life.

CLA 3124 Roman Civilization HP (3) AS WLE
Study of Ancient Roman Civilization with emphasis on social customs, political institutions, and daily life.

CLA 3501 Women in Antiquity 6A LW (3) AS WLE
The life of women in the ancient Greek and Roman world, through lecture, video, and slide presentations. The course is not restricted to majors and cannot be repeated for credit.

CLA 3930 Selected Topics (3) AS WLE
An examination of various aspects of Greek and Roman Culture, based on ancient sources, literary and archaeological. Repeatable as topics vary.

CLA 4020 Selected Topics (1-4) AS WLE
Course content depends on student demand and instructor's interest and may range over the whole field of ancient languages, literatures and civilizations. Offerings on a semi-regular basis include Tongues of the Bible and the Bible as History.

CLP 2001 Psychology of Adjustment SS (3) AS PSY
Genetic, organic, and learned factors involved in the processes of personal adjustment; applications of mental health principles to everyday living.

CLP 4143 Abnormal Psychology (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Descriptions, theoretical explanations, research evidence, and treatment of maladaptive behavior.

CLP 4414 Behavior Modification (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Introduction to behavior analysis, and application of learning principles, behavioral measurement, research designs, and interventions in treatment settings.

CLP 4433 Psychological Tests and Measurement (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. A consideration of the instruments for intellectual and personality assessment including their applications, development, and potential abuses.

CLT 2043 Wordpower from Latin and Greek (3) AS WLE
Study of Greek and Latin elements as a means of building English vocabulary. Examination of Greek/Latin-based terminology from various scientific fields, its adoption into English and current usage. Attention given to Greek/Latin stems, prefixes, suffixes.

CLT 3040 Scientific and Medical Terminology (3) AS WLE
A course in the Greek and Latin word elements used in science and technology.

CLT 3103 Greek Literature in Translation 6A MW (3) AS WLE
Reading and discussion of major works in Greek literature. Special emphasis is placed on the Iliad, the dramatists Aeschylus, Sophocles, Euripides and Aristophanes. Some attention is given to the social and political background of the works. All readings are in English.

CLT 3123 Roman Literature in Translation 6A MW (3) AS WLE
Reading and discussion of major works in Roman literature. Special emphasis is placed on the Aeneid, comedy and satire. Some attention is given to the political background of the works. All readings are in English.

CLT 3370 Classical Mythology HP (3) AS WLE
Study of Greek and Roman myths embodied in classical literature and of their impact on Western civilization. All readings are in English.

CJT 4100 Criminal Investigation (3) AS CJP
PR: Junior standing, CCJ 3024 or CCJ 3610 or CI. Covers the major components of criminal investigation, with special attention to the scientific aspects of criminal investigation and the management of major cases.

CJT 4110 Substantive Criminal Law (3) AS CJP
PR: Junior standing, CCJ 3024 or CCJ 3610 or CI. The course provides an overview of key substantive elements of the crime, and court procedures.

CJL 3110 Substantive Criminal Law (3) AS CJP
PR: Junior standing, CCJ 3024 or CCJ 3610, or CI. Examines the historical basis of the American criminal law system, the substantive elements of the crime, and court procedures.

COM 3014 Communication, Gender and Identity (3) AS SPE
PR: COM 2000 with C or above or consent of instructor (CI). Examines the communicative origins and implications of gender roles.

COM 3110 Communication For Business and the Professions (3) AS SPE
For non-majors only. Identification of communication situations specific to business and the professions. Analysis of variables related to communication objectives and preparation of oral presentations in the form of informational reports, conference management, persuasive communications, interviews, and public hearing.

COM 3120 Introduction to Communication Theory in Organizations (3) AS SPE
PR: COM 2000 with C or above or consent of instructor (CI). A survey of communication concepts which impact upon organizational effectiveness.

COM 3122 Interview Communication (3) AS SPE
A study of communication theory relative to persuasive interviewing with an emphasis on career interview situations.

COM 4020 Communicating Illness, Grief, and Loss 6A (3) AS SPE
PR: COM 2000 with C or above or consent of instructor (CI). Focuses on stories of illness, grief, and loss to make sense of these experiences; to understand the cultural and rhetorical influences on how stories are told; and to explore the context of everyday life, romantic relationships, families, institutions, and culture in which they occur.

COM 4022 Health Communication (3) AS SPE
PR: COM 2000 with C or above or consent of instructor (CI). Application of communication theory and research to the health context including provider-patient communication, health information campaigns, and health beliefs and behavior. Special attention to the value issues in health communication.

COM 4030 Women and Communication 6A MW (3) AS SPE
Examines women's patterns of communication in a variety of contexts. Also offered under Women's Studies.

COM 4124 Communication and Organizational Change (3) AS SPE
PR: COM 2000 with C or above and COM 3120 or consent of instructor (CI). An advanced course covering current issues in organizational transformation (e.g., organizational dialogue, learning organizations, reengineering, work teams), and the role communication processes play in such changes.

COM 4710 Writing Lives 6A (3) AS SPE
PR: Junior/Senior standing or CI. Emphasizes writing stories about our lives and the lives of others as a way to understand, cope with and communicate social experiences.

COM 4942 Communication Intern Seminar (3) AS SPE
PR: Communication major, minimum GPA 3.0, 75 hours completed, 15 hours of core requirements and 9 elective hours completed, and CI. Seminar provides students with an opportunity to put into practice concepts and skills acquired in their study of communication. Weekly seminar sessions augment internship experience. Application for seminar must be submitted one semester prior to seminar offering.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Department</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>COP 4703</td>
<td>Database Systems for Information Technology (3) US EIT</td>
<td>3</td>
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<tr>
<td>COP 4610L</td>
<td>Operating Systems Laboratory for Information Technology</td>
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<td>US EIT</td>
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<tr>
<td>COP 4610</td>
<td>Operating Systems for Information Technology</td>
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<td>US EIT</td>
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<tr>
<td>COP 4313</td>
<td>Symbolic Computations in Mathematics</td>
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<td>COP 4020</td>
<td>Programming Languages</td>
<td>3</td>
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<td>EN ESB</td>
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<tr>
<td>COP 3515</td>
<td>Program Design for Information Technology</td>
<td>3</td>
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<td>US EIT</td>
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<tr>
<td>COP 3333</td>
<td>Visual Basic for Experienced Programmers</td>
<td>3</td>
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<tr>
<td>COP 3257</td>
<td>JAVA for Experienced Programmers</td>
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<td>EN ESB</td>
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<tr>
<td>COP 2510</td>
<td>Programming Concepts</td>
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<td>COM 5930</td>
<td>Topics in Communication Studies</td>
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<td>COP 2120</td>
<td>SC Cobol Programming I</td>
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<td>COP 2270</td>
<td>Programming in C for Engineers</td>
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<td>Programming Concepts</td>
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<td>EN ESB</td>
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<td>COP 3331</td>
<td>Object Oriented Software Design</td>
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<td>Web Development Tools</td>
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<td>Politics of the Developing Areas SS AF (3) AS POL</td>
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<td>Narration and Description</td>
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<td>AS ENG</td>
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<td>Form and Technique of Fiction 6A (3) AS ENG</td>
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<tr>
<td>CRW 3112</td>
<td>Fiction I 6A (3) AS ENG</td>
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and proceeding through the many processes of revision to arrive at a completed work of art.

CRW 3121 Fiction II 6A (3) AS ENG
PR: CRW 2100 or CRW 3111, CRW 3112. A fiction workshop which provides individual and peer guidance for the student's writing and which encourages the development of critical skills.

CRW 3311 Form and Technique of Poetry (3) AS ENG
An examination of the techniques employed in fixed forms from the couplet through the sonnet to such various forms as the rondel, ballad, villanelle, sestina, etc. Principles in the narrative, dramatic, and lyric modes are also explored.

CRW 3312 Poetry I (3) AS ENG
PR: CRW 3311. An introduction to poetry writing utilizing writing exercises emphasizing poetic language and devices; the exercises progress to the writing of both rhymed and unrhymed metrical and non-metrical forms.

CRW 3321 Poetry II (3) AS ENG
PR: CRW 3311, CRW 3312. A poetry workshop which provides individual and peer guidance for the student's writing and which encourages the development of critical skills.

CRW 4120 Fiction III (3) AS ENG
PR: CRW 2100 or CRW 3111, CRW 3112, CRW 3121. An advanced fiction workshop in which works may be carried over from CRW 3121 or longer forms such as the novel may be begun.

CRW 4312 Poetry III (3) AS ENG
PR: CRW 3111, CRW 3312, CRW 3321. An advanced poetry workshop in which students are expected to create works exhibiting a firm knowledge of the principles explored in the preceding courses.

CRW 4930 Selected Topics in Creative Writing (3) AS ENG
PR: 12 hours of CRW courses or CI. The focus of the course will be governed by student demand and instructor interest. Topics to be covered may include writing the literary essay, writing in mixed genres, and utilizing popular conventions in serious works. May be taken twice for credit with different topics.

CWR 4103 Water Resources Engineering I (3) EN EGX
PR: CWR 4202. A study of the engineering principles involved in sustaining the quantity and quality of water available for human activities with particular emphasis on surface water and ground water hydrology.

CWR 4202 Hydraulics (3) EN EGX
PR: EGN 3353. Fundamental and applied aspects of pipe flow, free surface flow, and unsteady flow for hydraulic systems.

CWR 4541 Water Resources Engineering II (3) EN EGX
PR: EGN 3353. CWR 4202. The course is intended to be a technical elective for students specializing in water resources or environmental engineering. Material in the course covers subsurface hydrology including both soil vadose zone processes and the ground water flow.

CWR 4812 Capstone Water Resources/Environmental Design MW (4) EN EGX
PR: CWR 4103, ENV 4001. CR: ENV 4417, CWR 4202, CEG 4012, or TTE 4252. A capstone water resources design experience for seniors in Civil and Environmental Engineering. A design oriented course to design both industrial and domestic water treatment, and water transport systems and hydraulic systems, including drainage, water supply, and flood control.

DAA 2100 Fundamentals Of Modern Dance (2) VP DAN
A studio class for students with a serious interest in concert modern dance. Emphasis upon correct alignment, development of strength, rhythmic and dynamic activity, as well as spatial and locomotor patterns. May be repeated up to six credit hours.

DAA 2104 Modern Dance I (2) VP DAN
PR: Admission by placement audition. A studio class for students with a serious interest in concert modern dance. Further emphasis on correct alignment, development of strength, rhythmic and dynamic activity as well as spatial and locomotor patterns. May be repeated up to eight credit hours.

DAA 2200 Fundamentals Of Ballet (2) VP DAN
A studio class for students with a serious interest in ballet. Emphasis on correct alignment of the body and a progressive development of positions and barre exercises as well as the application of combinations in center work using classical Ballet vocabulary (French terms). May be repeated.

DAA 2204 Ballet I (2) VP DAN
PR: Admission by placement audition. A studio class for students with a serious interest in ballet. Further emphasis on correct alignment of the body and a progressive development of positions and barre exercises as well as the application of combinations in center work using classical Ballet vocabulary (French terms). May be repeated.

DAA 2500 Fundamentals Of Jazz Dance (2) VP DAN
A basic movement class in Jazz Dance involving dance vocabulary, alignment, styles and simple rhythmic patterns. May be repeated up to six credits.

DAA 2504 Jazz Dance (2) VP DAN
PR: Admission by placement audition and DAA 2500. A technique class for the intermediate level dancer to become acquainted with the dance styles and forms of musical theatre and concert jazz dance. Emphasis is on highly stylized movement with a strong rhythmic base. May be repeated.

DAA 2540 Theatre Dance Styles (2) VP DAN
PR: DAA 2500 or DAA 2504. An introduction to dance styles of modern and historical dance forms frequently stylized for use by different choreographers. Forms to be studied will include polka, clogging, waltz, folk, tap dancing, etc. May be repeated up to six credits.

DAA 3208C Ballet III (3) VP DAN
PR: Admission by placement audition and DAA 2504. Further emphasis on projection, phrasing, rhythmic patterns and dynamics. Solo and ensemble studies leading to performance. May be repeated up to six credits.

DAA 3106 Modern Dance II (3) VP DAN
PR: Admission by placement audition. Study of principles of modern dance technique. Practical work in exercises and movement phrases, utilizing changing rhythms and dynamics. Concert and performance pieces required. May be repeated.

DAA 3109 Modern Dance III (2-3) VP DAN
PR: Admission by placement audition. Continuation of DAA 3106. Further emphasis on style and phrasing. Work on projecting movement and quality by dancing and rehearsing in more advanced choreography, leading to performance. May be repeated.

DAA 3208C Ballet IV (3) VP DAN
PR: Admission by placement audition. Positions and barre exercises. Emphasis on correct alignment of the body and the application of simple step combinations in centre work. The use of ballet vocabulary (French terms). Material is covered almost totally as practical work in class with a few outside projects. Concert and performance pieces are required. May be repeated.

DAA 3209 Ballet III (2-3) VP DAN

DAA 3309 Ballet III (2-3) VP DAN
PR: DAA 3209. This course provides instruction in various forms of ballet. Semester course includes: Pointe technique, Men's Class, Character Dance, Spanish Dance and Partnering. BFA Ballet concentration students are required to complete two semester hours. May be repeated.

DAA 3395 World Dance Topics (1) VP DAN
Students will experience fundamental knowledge of dance representing various world cultures. Involves rehearsal and performance of solo and/or group dances. May be repeated up to six credits.

DAA 3614 Choreography I (2) VP DAN
PR: DAN 3614; CR: DAA 3307. BFA students must be concurrently enrolled in Modern III/IV and Ballet III. Study and execution of basic principles of composition. Preparation of studies in theme and variations, breath phrases and metric phrases.

DAA 3615 Choreography II (2) VP DAN
PR: DAA 3614. Preparation of studies in rhythm, dynamics, form and motivation.

DAA 3624 Dance Improvisation (2) VP DAN
PR: May be repeated.

DAA 3654 Repertory I (1) VP DAN
PR: Admission by audition. The development and performance of solo and/or group dances.

DAA 3684 Repertory II (1) VP DAN
PR: Admission by audition. The development and performance of solo and/or group dances.

DAA 3800 Junior Performance Project (1) VP DAN
PR: Admission by audition. Required for junior dance majors. Involves rehearsal and performance of work presented at senior dance major in the dance program. Open to all university students proficient in dance techniques and concurrently enrolled in technique courses. Repeatable.
DAA 4110 Modern Dance IV (3-4) VP DAN
PR: Admission by placement audition. Intense work on the growth of personal performance styles. Equal emphasis will be given to training the body in the development of technical excellence. May be repeated.

DAA 4111 Ballet Dance IV (3-4) VP DAN
PR: Admission by placement audition or CI. Perfecting the execution of barre work. Intensification of centre work. More stress on aesthetic quality of movement and phrasing. Students expected to be proficient in pointe work. Outside projects, concerts, and performances are required. May be repeated.

DAA 4616 Choreography III (2) VP DAN
PR: DAA 3615. CR: DAA 3109 or above. Work directed toward duets and group dances. The students will submit choreography ideas for instructor’s approval, then proceed with rehearsals. Lec-lab., reading. Rehearsal hours to be arranged.

DAA 4617 Choreography IV (2) VP DAN
PR: DAA 4616. The student will prepare studies based on free form, minimal art, and chance methods. Lec-lab., reading.

DAA 4685 Performance (1-3) VP DAN
PR: Admission by audition. Open to all university students proficient in dance techniques and concurrently enrolled in Technique. Involves rehearsal and performance of works presented by the department. May be repeated.

DAA 4687 Performance (1-2) VP DAN
PR: Admission by audition. Open to all university students proficient in dance techniques and concurrently enrolled in Technique. Involves rehearsal and performance of works presented by the department. May be repeated.

DAA 4694 Senior Choreography Project (1) VP DAN
PR: Dance majors with senior standing. The creation of an original group work and solo within the senior’s major concentration-ballet or modern. To be performed and presented with the consent of a faculty advisor.

DAA 4920 Dance Studies (1-4) VP DAN
PR: CI and CC. Dance Major status. Individual study to extended competency in technique and performance of Dance through participation in special workshops and seminars.

DAE 3351 Ethnic/Folk Dance (2) VP DAN
An exploration of ethnic and folk dance forms in various cultures of the eastern and western hemispheres. Students will investigate ways of doing, making, and teaching dances through studio work, videos, performances, and readings.

DAE 4300 Dance Pedagogy: Theory and Practice (3) VP DAN
PR: CI, CC. Designed to provide prospective teachers with opportunities to develop concepts of pedagogy based on principles of teaching/learning dance. Specific sections will focus on Secondary Curriculum and Methods and on Pre-K and Elementary methods.

DAE 4310 Dance Pedagogy: Pre-School to Elementary (3) VP DAN
This course is designed to meet the needs of students in Dance Education to understand the scope and sequence of dance curriculum design and teaching methods appropriate to Pre-K and elementary students.

DAE 4340 Dance Pedagogy: Secondary Curriculum (3) VP DAN
This course is designed to meet the needs of students in Dance Education to understand the scope and sequence of dance curriculum design and teaching methods appropriate to the secondary student.

DAE 4397 Special Studies Dance Education (3) VP DAN
PR: CI and CC. Designed to provide prospective dance teachers with opportunities to develop concepts of pedagogy based on principles of teaching-learning in dance techniques and choreography. May be repeated up to 9 credit hours.

DAE 4936 Senior Seminar in Dance Education (2) VP DAN
CR: DAE 4940 This course represents a synthesis of the teacher Candidate’s courses and is required concurrently with the internship.

DAE 4940 Internship in Dance Education (1-12) VP DAN
CR: DAE 4936. S/U only. One full semester of internship in a public or private school. In special programs where the internship experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9 to 12 semester hours.

DAN 2100 Introduction To Dance 6A FA (3) VP DAN
For majors and non-dance majors, a study of the art and language of dance through lectures, discussions, concert attendance, and studio practice. Designed to develop awareness and insight of this art form through discussion, observation, writing, and movement experience.

DAN 2160 Entry Seminar (2) VP DAN
This is a study of dance-related career opportunities through lectures, assigned reading and video viewing. This course will aid majors in understanding dance as an aesthetic art form through discussion and critical evaluation.

DAN 3584 Practicum In Dance Production (2) VP DAN
A practicum in mounting dance concerts with shop work and backstage participation. Intended for students working in costume, set preparation, lighting, stage management and production crew. Dance majors must have 4 credits. May be repeated.

DAN 3614 Music For Dance (2) VP DAN
PR: Designed for majors and non-majors. Development of musical skills in movement studies. Continued study of the relationship of music and dance through movement experiences, observations, video, and writing.

DAN 3615 Music For Dance II (2) VP DAN

DAN 3714 Dance Kinesiology (3) VP DAN
This course will give the student an understanding of basic human anatomy and how it functions in relation to movement, injury prevention, teaching and performance. Individual structural deficiencies and how they affect movement potential will also be studied. There will be an emphasis on the kinesiological analysis of movement with the goal of increased efficiency, enhanced performance and injury prevention.

DAN 4134 Dance History Though the 19th Century 6A LW (3) VP DAN
Designed for majors and non-majors, this course will trace the development of dance as an art form in the 20th Century. It is designed to develop awareness and insight through lecture, discussion, video, observation and writing.

DAN 4135 20th Century Dance MW (3) VP DAN
Designed for majors and non-majors, this course will trace the development of dance as an art form in the 20th Century. It is designed to develop awareness and insight through lecture, discussion, video, observation and writing. Students will be required to attend at least two dance performances.

DAN 4162 Research in Dance (2) VP DAN
PR: Dance major with Junior standing, and completion of two courses in secondary area. Course will introduce basic research methodologies for conducting research in the dance genre, and will serve the student in preparing for future research based study in the field of dance. Students will conduct library, internet, and field research.

DAN 4180 Dance Senior Seminar (2) VP DAN
PR: Dance major with senior status. A study of career opportunities in performance, teaching, research, design, and choreography. Top-dance majors in self-identified concentrations and develop methods to further their potential in the professional world, discussion, critical evaluation and projects.

DAN 4404 Laban Movement Analysis (3) VP DAN
Specialized study in movement theories, body alignment, and movement patterns focusing on the scientific and analytical basis of movement in dance with consideration for developmental processes, technique, creative expression, and performance.

DAN 4593 Special Study in Movement, Theory, Body Alignment (2) VP DAN
Analysis of scientific basis of movement for the dancer through the study of body alignment and movement theories related to dance techniques.

DAN 4906 Directed Study (1-5) VP DAN
PR: CI. CC. Independent studies in the various areas of Dance. Must receive approval prior to registration. May be repeated.

DAN 4930 Selected Topics In Dance (1-5) VP DAN
PR: CI and CC. The content of the course will be governed by student and instructor interest. May be repeated by majors.

DEC 4161 Program Management of Distributive and Marketing Education (3) ED
The study of the purposes, processes, organization, planning, directing, coordinating and evaluation of Distributive and Marketing Education Cooperative Programs.

DEC 4161 Supervised Field Experience: Distance Education (1-6) ED EDV
Planned supervised functions in the area of specialization and coordinated with selected schools, government offices, social agencies, businesses and industries on site.
DEP 3103 Child Psychology SS (3) AS PSY
Not for major credit. Developmental and psychosocial aspects of childhood, including hereditary, maturational, psychological, and social determinants of child behavior.

DEP 4053 Developmental Psychology (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Survey of methods, empirical findings, and theoretical interpretations in the study of human development.

DEP 4135 Psychology of Language Development (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Available both to majors and non-majors. Surveys the course of and processes underlying normal language development. Presents data and theory on phonological, semantic, syntactic, and pragmatic development.

EAE 4715 Supervised Practicum and Field Experience in Applied Behavior Analysis (1-6) AS PSY
PR: PSY 4933 with a grade of B or better. Does not count toward major credit. Field experience in Behavior Analysis in applied settings. Under the supervision, involves the design, implementation and evaluation of behavior analysis methods in applied settings. Includes both field practicum and didactic components. May be repeated for a maximum of 6 hours.

EAP 1850 English for Foreign Students I (3) AS WLE
A special course for students learning English as a second language. Intensive study and drill in American English pronunciation, listening, comprehension, reading, and composition.

EAS 4121 Hydro and Aerodynamics (3) EN EGR
PR: EML 3701, MAP 2302. Advanced fluid dynamics, ideal and viscous flows, applications to flow around immersed bodies.

ECH 3023C Material and Energy Balances (4) EN ECH
PR: PHY 2049, MAC 2283, CHM 2046, CP: EGN 3434. Integration of previous knowledge into the definition of reactors and separation processes, through the hierarchical use of material balance, phenomenological and energy balance equations. Representation of streams as arrows and processes as black boxes in Box Flow Diagrams, BFD. Application of degree of freedom analysis.

ECH 3242L Chemical Engineering Lab I (1) EN ECH
PR: ECH 3023C, ENC 3246, EGN 3443. The theory and application of chemical engineering instrumental measurement methods: density, temperature, flow, pressure, viscosity, refractive index, humidity, gaseous and liquid composition, and pH/ion selective electrodes (ISE) analysis.

ECH 3702 Instrument Systems I (3) EN ECH
PR: MAP 2302 or EGN 3433, EGN 3434 and ECH 3023C or CI. Basic concepts of electric circuits and their applications. Resistors, capacitors, inductors, logic operations, and operational devices. Programmable Logic controllers, ladder diagrams.

ECH 4123 Chemical Engineering Thermodynamics (3) EN ECH
PR: ECH 3023, EGN 3434, MAP 2302 or EGN 3433. Correlation of thermodynamic properties of real systems and solutions. Description of multicomponent, multiphase systems in equilibrium. Applications to separation processes and reactor design.

ECH 4243L Chemical Engineering Lab II (1) EN ECH
PR: ECH 4265C, ECH 3242L. Chemical Engineering processes laboratory experiments: fluid flow, heat transfer, phase and chemical equilibrium, reacting systems, and process control.

ECH 4244L Chemical Engineering Lab III (1) EN ECH
PR: ECH 4415C, ECH 4243L. Chemical Engineering Processes laboratory experiments: fluid flow, heat transfer, reacting systems, and process control. Majors only. Not repeatable for credit.

ECH 4264 Transport Phenomena (4) EN ECH

ECH 4265C Mass Transfer Operations (4) EN ECH
PR: ECH 4845, ECH 4264, ECH 4123. Integration of phase equilibria with the principles of fluid mechanics, heat and mass transfer in the description of separation processes. Selection of the number of stages and limiting operating conditions in cascades — NTU and HTU. Sizing of partial condensers and pressure differential in columns. Transfer to single particles.

ECH 4323C Process Dynamics and Control (3) EN ECH

ECH 4415C Reaction Engineering (4) EN ECH
PR: CHM 2210, ECH 4265C. Integration of chemical equilibrium and kinetics, heat transfer and fluid mechanics into the hierarchical description of reacting systems. Analysis and selection of operating conditions and contacting models. Sizing. Restricted to department majors.

ECH 4650 Product and Process Systems Engineering (3) EN ECH

ECH 4651 Product and Process Design (MW) (3) EN ECH
PR: ECH 4415C, ECH 4650; CP: ECH 4323C. Synthesis and analysis of economically feasible and environmentally acceptable chemical processing routes; Design of safe chemical production and treatment facilities; Chemical product design; Computer Aided-Design; Case studies and Design Project.

ECH 4845 Numerical Methods in Chemical Engineering (4) EN ECH
PR: ECH 3023C, ECH 3343, EGN 3433 or MAP 2302. Computer usage in chemical engineering. Use of computer methods to solve chemical engineering problems. Solution of linear and nonlinear algebraic and differential equations that arise in chemical engineering. Optimization and numerical methods.

ECH 4905 Independent Study (1-4) EN ECH
PR: CI. Specialized independent study determined by the student’s needs and interests. Students must have contract with instructor.

ECH 4930 Special Topics in Chemical Engineering I (1-4) EN ECH
PR: CC.

ECH 4931 Special Topics in Chemical Engineering II (1-4) EN ECH
PR: CC.

ECH 4936 Undergraduate Seminar (1) EN ECH

ECH 5320 Chemical Process Engineering I (4) EN ECH
PR: Bachelor degree in science, math, or engineering. The course presents the principles of mass balances, classical thermodynamics, phase equilibrium, energy balances, and psychrometrics. The student will learn by doing many case studies. Computer software will be used to obtain solutions to many problems.

ECH 5321 Chemical Process Engineering II (4) EN ECH
PR: Bachelor degree in science, math, or engineering. Basic concepts of fluid mechanics, including viscous flows, pipe flow with minor losses, simple fluid machinery, momentum and external flow. Steady state convective and convective heat transfer. Not available for chemical engineering students.

ECH 5322 Chemical Process Engineering III (4) EN ECH
PR: Bachelor degree in science, math, or engineering. Basic concepts of fluid phase equilibrium, chemical equilibrium, separation processes, and chemical reactors. Not available for chemical engineering students.

ECH 5324 Automatic Process Control II (3) EN ECH
PR: ECH 4323C or CI, majors only / 2 hrs lec., 3 hrs. lab/week. The course covers the root locus and frequency response methods to study stability of control loops. The techniques of ratio, cascade, feed forward, selective, override, and multi-variable control techniques are discussed in detail and shown how to utilize to design control systems, z-transforms and discrete controllers including PID, Dahlin and deadline compensation.

ECH 5327 Chemical Process Control (4) EN ECH
PR: Bachelor degree in science, math, or engineering. Basic concepts of feedback control, process dynamics, process controllers (PID) including tuning, control loop stability, cascade, ratio, selective, override, feedforward, and multivariable control. Not available for chemical engineering students.

ECH 5740 Theory and Design of Bioprocesses (4) EN ECH
Introduction to biotechnology, including applied microbiology, enzyme technology, biomass production, bioreactor design, and transport processes in biosystems.
ECH 5747C Selected Topics in Chemical Engineering Biotechnology (1-3) EN ECH
PR: Senior or GS standing in engineering or CI. Open to majors and non-majors with CI. Selected topics in engineering in biotechnology, including cell separation technology, immobilized enzymes and cells, food engineering, biohazardous waste, and bioseparations.

ECH 5748 Selected Topics in Biomedical Engineering (1-3) EN ECH
Selected topics in biomedical engineering, including biomedical engineering, biomedical materials, biomechanics of circulation, separation processes in biomedical systems, and artificial organ systems.

ECH 5820 Product Development (2) EN ECH
PR: Senior or GS in Engineering or CI. Introduction to the development of consumer products, including the history of innovation, creativity development, the product development environment, and a detailed examination of several product areas.

ECH 5930 Special Topics III (1-4) EN ECH
PR: CI.

ECH 5931 Special Topics IV (1-4) EN ECH
PR: CI.

ECO 1000 Basic Economics SS (3) BA ECN
No credit after completing either ECO 2023 or ECO 2013. Survey of economic principles and issues. Scarcity, choice, markets, prices, the monetary system, unemployment, inflation, international trade and finance.

ECO 2013 Economic Principles (Microeconomics) SS (3) BA ECH
Introduction to the theory of income determination with emphasis on monetary and fiscal policies. Objectives of full employment, price stability, economic growth and balance of payments stability.

ECO 2023 Economic Principles (Microeconomics) SS (3) BA ECH
Introduction to the theory of price determination. How an economy decides what to produce, how to produce, and how to distribute goods and services.

ECO 2935 Selected Topics In Economics (1-3) BA ECH
Not available for credit to upper-level students admitted to the College of Business. Topics selected by department. May be repeated if topics vary.

ECO 3101 Intermediate Price Theory (3) BA ECH
PR: ECO 2023. The price system and allocation of scarce resources between competing uses. May not receive credit for both ECO 3703 and ECO 3101.

ECO 3203 Intermediate Macroeconomics (3) BA ECH
PR: ECO 2013 and ECO 3703 or ECO 3101 with a grade of "C" or better. Determinants of income, employment, prices, and interest rates. Aggregate demand and aggregate supply.

ECO 3213 American Economic History (3) BA ECH

ECO 3703 International Economics MW (3) BA ECH

ECO 4005 Advanced Price Theory (3) BA ECH
PR: ECO 3703 or ECO 3101 with a grade of "B" or better. An advanced survey of special topics in microeconomics: borrowing and saving, decision making under uncertainty, markets for capital and labor, game theory, production and exchange efficiency, social welfare, and efficiency consequences of market and non-market allocation.

ECO 4201 Advanced Macroeconomic Theory (3) BA ECH
PR: ECO 3203 with a grade of "B" or better. An advanced analysis of a particular topic or topics in macroeconomics. Areas of study include the theories of money, growth, and business cycles. Discussions of how such theories accord with the data are also presented.

ECO 4303 History Of Economic Thought (3) BA ECH

ECO 4623 Radical Political Economy MW (3) BA ECH
PR: ECO 1000 or ECO 2013 or ECO 2023 or CI. The radical (left) and Marxist schools of thought in economics. Application of radical theory to problems of advanced capitalist and socialist societies.

ECO 4401 Introduction to Mathematical Economics (3) BA ECH
PR: ECO 3703 or ECO 3101, and MAC 2241 or MAC 2233 or CI. Mathematical models of optimizing behavior and economic equilibrium.

ECO 4421 Introduction to Econometrics (3) BA ECN
PR: ECP 3703 or ECO 5101, and QMB 3200 with a grade of "B" or better or CI. Survey of basic econometric techniques. Regression analysis employed to estimate consumption, investment, demand, cost, and production functions. Examines problems of auto-correlation, heteroscedasticity, multicollinearity, and specification errors.

ECO 4504 Public Finance (3) BA ECN
PR: ECP 3703 or ECO 3101 with a grade of "C" or better. The public sector and its contribution to economic welfare. Government expenditures and revenues. Resource allocation, income distribution, stabilization, and economic growth.

ECO 4704 International Trade and Policy (3) BA ECN
PR: ECP 3703 or ECO 3101 with a grade of "C" or better. Advanced analysis of international trade theory and commercial policy, international economic integration, multinational enterprise.

ECO 4713 International Macroeconomics (3) BA ECN
PR: ECP 3703 or ECO 3101 with a grade of "C" or better. Advanced analysis of international macroeconomic relationships. Foreign exchange market, international monetary system balance of payments.

ECO 4905 Independent Study (1-3) BA ECN
PR: CI. S/U only. Specialized independent study determined by the student’s needs and interests. May be repeated up to 6 hours.

ECO 4914 Independent Research (1-3) BA ECN
PR: CI. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor. May be repeated up to 6 hours.

ECO 4935 Selected Topics in Economics (1-3) BA ECN
Topics to be selected by the instructor or instructors on pertinent economic issues.

ECP 3201 Economics of Women and Work MW (3) BA ECH
PR: ECO1000 or ECO 2013 and ECO 2023. Survey of research on women, men and work in the labor market and the household. Focuses on the economic status of women. Includes historical perspective, examination of the family as an economic unit, changing work roles, and gender differences in occupation and earnings.

ECP 3203 Labor Economics (3) BA ECN
PR: ECO 3703 or ECO 3101 with a grade of "C" or better. Determinants of wage and employment levels; occupational, industrial and geographical wage differentials; union and public policy effects on labor markets; the economics of discrimination; inflation, and unemployment.

ECP 3302 Environmental Economics MW (3) BA ECH

ECP 3302 Environmental Economics MW (3) BA ECH

ECP 3413 Economics of Regulation and Antitrust (3) BA ECH
PR: ECO 2013 and ECO 2023. Economic analysis of the rationale and performance of government regulation of the trust policy. Examination of antitrust issues such as price fixing, mergers, and monopolization, and issues regulating electric utilities, airlines, trucking, consumer product safety, product quality, and the environment.

ECP 3510 Economics of Health (3) BA ECN
PR: ECO 3703 or ECO 3101 with a grade of "C" or better. Application of economic methods to health care topics such as demand for medical care, public and private health insurance, physician and hospital supply of medical care, government regulations, and national healthcare systems.

ECP 3613 Economics of the Urban Environment MW (3) BA ECH
PR: ECO 1000 or ECO 2013 or ECO 2023 or CI. Economic analysis of cities and urban social problems. Poverty, discrimination, housing, transportation, pollution, crime, and fiscal considerations.

ECP 3703 Managerial Economics (3) BA ECH
PR: ECO 2023. Application of microeconomic theory to problems in business decision making with a special focus on price determination. May not receive credit for both ECO 3703 and ECO 3101. Formerly ECO 3100.

ECP 4232 Collective Bargaining and Public Policy (3) BA ECN
PR: ECO 2023 or CI. Administration of labor management agreements. Impact of the government role in collective bargaining and labor relations.

ECP 4451 Law and Economics (3) BA ECN
PR: ECO 2013 and ECO 2023. Advanced analysis of the economic impact of tort, criminal, property, and contract law as well as in the formation and adjudication of law.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Department</th>
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<tbody>
<tr>
<td>ECP 4505</td>
<td>Economics of Crime</td>
<td>ED ECN</td>
</tr>
<tr>
<td>PR: ECO 2013 and ECO 2023</td>
<td>Application of economic theory to the analyses of criminal behavior, crime prevention, law enforcement, sanctions, and corrections.</td>
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<tr>
<td>ECS 3013</td>
<td>Economic Development</td>
<td>ED ECN</td>
</tr>
<tr>
<td>PR: ECO 2013 and ECO 2023</td>
<td>Economic development in emerging nations.</td>
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</tr>
<tr>
<td>ECS 4003</td>
<td>Comparative Economic Systems MW (3) BA ECN</td>
<td>ED ECN</td>
</tr>
<tr>
<td>PR: ECO 1000 or ECO 2013 or ECO 2023 or CI</td>
<td>The major economic systems: traditional, capitalism, democratic socialism, communism and fascism.</td>
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</tr>
<tr>
<td>ECS 4430</td>
<td>Economics of Latin America AF MW (3) BA ECN</td>
<td>ED ECN</td>
</tr>
<tr>
<td>PR: ECO 1000, or BOTH ECO 2013 and ECO 2023</td>
<td>The course examines key aspects of economic reform efforts in Latin America and the Caribbean and the challenges facing the region at the beginning of the 21st century.</td>
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</tr>
<tr>
<td>EDE 4223</td>
<td>Creative Experiences for the Child (3) ED EDE</td>
<td>ED EDE</td>
</tr>
<tr>
<td>PR: Acceptance into College of Education</td>
<td>Provides students with critical understanding of visual arts, music, movement, and drama in K-6 curriculum. Students will develop knowledge and strategies to incorporate creative expression into integrated curriculum. Restricted to majors. Not repeatable.</td>
<td></td>
</tr>
<tr>
<td>EDE 4301</td>
<td>Classroom Management, School Safety, Ethics, Law</td>
<td>ED EDE</td>
</tr>
<tr>
<td>and Elementary Methods</td>
<td>(3) ED EDE</td>
<td>PR: Admission to the Department of Childhood Education. The course examines the legal issues affecting classroom/school management, school safety, professional ethics and elementary school methods. The course explores the current knowledge of best practices of a variety of teaching and management strategies, and methods deemed appropriate for a diverse elementary classroom setting including ESOL students and other exceptionalities.</td>
</tr>
<tr>
<td>EDE 4905</td>
<td>Independent Study: Elementary Education (1-4) ED</td>
<td>ED ED EDE</td>
</tr>
<tr>
<td>EDE 4940</td>
<td>Directed Study: Elementary Education (1-4) ED EDE</td>
<td>ED EDE</td>
</tr>
<tr>
<td>PR: Senior standing. To extend competency in teaching field.</td>
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<tr>
<td>EDE 4940</td>
<td>Internship: Elementary Education (10-12) ED EDE</td>
<td>ED EDE</td>
</tr>
<tr>
<td>PR: EDE 4941 and EDE 4942; CR: EDE 4936</td>
<td>S/U only. Teacher candidate is required to demonstrate professional competencies during one semester of full day internship in a public or private elementary school.</td>
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<tr>
<td>EDE 4941</td>
<td>Childhood Education Internship Level I (3) ED EDE</td>
<td>ED EDE</td>
</tr>
<tr>
<td>PR: Admission to the Elementary Education. CR: RED 4310, EDG 4620. Concurrent enrollment in EDG 4620-Elementary section. S/U only.</td>
<td>Students spend six hours per week in a supervised in-school experience and attend weekly seminar.</td>
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</tr>
<tr>
<td>EDE 4941</td>
<td>Childhood Education Internship Level II (3) ED EDE</td>
<td>ED EDE</td>
</tr>
<tr>
<td>PR: EDE 4941, RED 4310, EDG 4620. EDG 3122. LAE 3414, EDE 4301, MAE 4310, SCE 4310, LAE 4414, SSE 4313, EME 2040.</td>
<td>S/U only. Students spend 12 hours per week in a supervised internship experience in classroom settings and attend a weekly seminar.</td>
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</tr>
<tr>
<td>EDF 2005</td>
<td>Introduction to Education and Field Experience (3)</td>
<td>ED EDE</td>
</tr>
<tr>
<td>PR: Introduction survey course required for admission into the College of Education. A broad overview of the history, sociology and philosophy of education in the United States focuses on education as a field of study and teaching as a profession. Includes lecture and field experience.</td>
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<tr>
<td>EDF 3122</td>
<td>Learning and the Developing Child (3) EDF</td>
<td>ED EDF</td>
</tr>
<tr>
<td>PR: General psychology and admission to College of Education.</td>
<td>Preadolescent child growth and development, learning theory, and behavioral analysis applied to instruction and to the organization and management of classroom.</td>
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<tr>
<td>EDF 3214</td>
<td>Human Development And Learning (3) EDF</td>
<td>ED EDF</td>
</tr>
<tr>
<td>PR: General psychology and admission to College of Education.</td>
<td>Application of developmental and operant learning principles to classroom learning, teaching models for different instructional goals, analysis of teacher behavior, micro-teaching.</td>
<td></td>
</tr>
<tr>
<td>EDF 3228</td>
<td>Human Behavior and Environmental Selection 6A MW</td>
<td>ED EDF</td>
</tr>
<tr>
<td>(3) EDF</td>
<td>PR: Learning principles, behavior analysis applied to global environmental and social issues. Requires elementary computer word processing skills.</td>
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</tr>
<tr>
<td>EDF 3514</td>
<td>History of Education in the United States HP MW</td>
<td>ED EDF</td>
</tr>
<tr>
<td>(3) EDF</td>
<td>PR: Upper-division standing. History of childhood, education, and schooling in the U.S. from early European and African contact to the present.</td>
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</tr>
</tbody>
</table>

The course descriptions are as follows:

**EDF 3208 Introduction to Early Childhood Education**

An overview of early childhood education with emphasis on its historical development, current theories, and practices.

**EEC 4008 Literature in Early Childhood Education**

An introduction to early childhood education with emphasis on critical analysis of literature for children (0-8 yrs.). Students will develop, implement, and evaluate a variety of lesson plans.

**EDE 4909 Directed Studies (1-4) ED EDE**

Directed study required only as scheduled class. Department permit required. To extend competency in teaching field.

**EDG 4012 Standards Based Education (1) ED EDE**

Pr: EDE 4317 for undergraduate, ELE 345 for graduate students. This course is designed to introduce students to standards-based education. Linking program outcomes for student learning with the relevant state and national educational standards. The course is restricted to majors and is not repeatable for credit.

**EDG 4320 Introduction to Creative Drama (3) VP EDD**

This course for classroom teachers introduces the theory and practice of creative drama as it applies to use by elementary, middle school and secondary school teachers. Beginning with a study of dramatic play as it relates to human development, the course includes basic strategies when using pantomime, voice improvisation, theatre games, and role playing and story dramatization.

**EDG 4620 Curriculum and Instruction (3) ED EDE**

An introduction to the field of curriculum and instruction. Emphasis is placed on principles of curriculum development and use of instructional strategies. Students will develop, implement, and evaluate a variety of lesson plans.

**EDG 4909 Directed Studies (1-4) ED EDE**

Pr: Senior standing. Offered only as a scheduled class. Department permit required. To extend competency in teaching field.

**EDE 4300 Introduction to Early Childhood Education (3) ED EDE**

An overview of early childhood education with emphasis on its historical development, current theories, and practices.

**ECE 4008 Literature in Early Childhood Education 6A LW (3) EDE**

Jr./Sr. Standing. Emphasis is placed on developing knowledge of literature for children (0-8 yrs.) and methodologies and strategies for utilizing literature to teach literacy in content areas of the curriculum.

**ECE 4203 Programs for Young Children (3) ED EDE**

Pr: Admission to College of Education. Early Childhood majors only. Develops students’ understanding of historical and social
<table>
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<tr>
<th>Course Code</th>
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<th>Description</th>
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</thead>
<tbody>
<tr>
<td>EEC 4211</td>
<td>Integrated Curriculum: Science and Mathematics</td>
<td>Provides an understanding of scientific and mathematical concepts for the appropriate stages of cognitive development of young children. Emphasis will be placed on how science and mathematics are integrated throughout the curriculum and become valuable functional tools.</td>
</tr>
<tr>
<td>EEC 4212</td>
<td>Integrated Curriculum: Social Sciences/Humanities &amp; Art</td>
<td>Develops an understanding of appropriate curriculum experiences in social science, humanities, and arts for kindergarten and primary grades with an emphasis on integrated experiences, and sociological influences such as culture, ethnicity, language, and gender impact understandings, values, and learning.</td>
</tr>
<tr>
<td>EEC 4303</td>
<td>Creative and Affective Experiences for Young Children</td>
<td>Focuses on developing an understanding of children's creative expression through art, music, movement, play, and drama. Emphasizes how to plan, implement, and evaluate appropriate learning experiences as well as selection of appropriate instructional materials.</td>
</tr>
<tr>
<td>EEC 4307</td>
<td>Cognitive Experiences for Young Children</td>
<td>Emphasizes theoretical and practical aspects of cognitive development for children ages 3 through 6 with focus on planning integrated experiences and content in science, math, and social sciences.</td>
</tr>
<tr>
<td>EEC 4408</td>
<td>Child, Family &amp; Teacher Relations</td>
<td>Focuses on developing an understanding of traditional and non-traditional family structures and life style variations and parenting in diverse cultures and at-risk families. Implications from these understandings will guide development of a parent involvement plan that includes effective ways to communicate with parents, conference with parents, and plan parent meetings and home visits.</td>
</tr>
<tr>
<td>EEC 4706</td>
<td>Language and Emerging Literacy</td>
<td>Provides knowledge of language development and emerging literacy for typical and atypical development in children from birth to third grade, including ESL.</td>
</tr>
<tr>
<td>EEC 4900</td>
<td>Directed Study: Early Childhood Education</td>
<td>Senior standing. To extend knowledge in teaching field.</td>
</tr>
<tr>
<td>EEC 4940</td>
<td>Internship: Early Childhood</td>
<td>CR: EEC 4936. S/U only. Teacher candidate is required to demonstrate professional competencies during one semester of full-day internship in a public or private elementary school.</td>
</tr>
<tr>
<td>EEC 4941</td>
<td>Field Experience I (3) ED EEU</td>
<td>PR: Admission to College of Education. Early Childhood majors only. Field placement in kindergarten or primary grade where teacher candidates have opportunities to apply knowledge and skills in authentic situations and become objective observers of young children's development. Weekly seminars are conducted in conjunction with the field experience which provide teacher candidates an opportunity for reflection on their understandings.</td>
</tr>
<tr>
<td>EEC 4942</td>
<td>Field Experience II (3) ED EEU</td>
<td>PR: Admission to College of Education. Early Childhood majors only. Field placement in kindergarten or primary grade where teacher candidates have opportunities to apply knowledge and skills in authentic situations. Emphasis on developing deeper understanding of children's development and implications of development for program planning for both typical and atypical children.</td>
</tr>
</tbody>
</table>

The course descriptions indicate the department and course code, followed by a brief description of the course content and prerequisite information where applicable.
measurements. Modern trends also treated are the use of on-
wafer measurements for transistor characterization and the
evaluation of monolithic microwave integrated circuits.

**EEL 4421 RF/Microwave Circuits I (3) EN EGE**
PR: EEL 3100, EEL 4471. Introduction to passive microwave
circuit design. Investigate the characteristics of transmission
lines used in modern microwave systems, the tools used for
analysis, and some common circuit topologies for matching,
filtering and power distribution. Part one of a two-part sequence.
Not available on an S/U basis.

**EEL 4422 RF/Microwave Circuits II (3) EN EGE**
PR: EEL 4421. Introduction to active RF/Microwave circuit design.
Investigate the characteristics of amplifiers and oscillators used
in modern microwave systems, the tools used for analysis, and
some common circuit topologies for biasing and matching.
Substantial coverage of stability analysis, constant gain methods
and noise figure. Part two of a two-part sequence. EE majors
only. Not available on an S/U basis.

**EEL 4471 Electromagnetics MW (3) EN EGE**
PR: MAP 2302 or EGN 3433, PHY 2049, PHY 2049L and EGN
3373 with a minimum grade of B. Electromagnetic field theory,
including static and dynamic electromagnetic fields; applications;
environmental effects (effects of radiation, magnetic fields).

**EEL 4512C Introduction to Communication Systems (3) EN EGE**
PR: EEL 3100. Provides an introduction to the fundamental
principles and techniques of analog and digital communication
systems. Theory is put into practice by investigating a variety
of applications. Lectures and projects develop understanding
of modern communication systems design and analysis.

**EEL 4557 Linear Systems (3) EN EGE**
PR: ELL 3301L, ELL 3302L, EEL 4471. An introduction to the
field of electro-optics, including visible and infra-red sources and
detectors, radiometry, optical and electronic components, and
fiber optics.

**EEL 4657 Linear Control Systems (3) EN EGE**
PR: EEL 3100. Introduction to analysis and design of linear
feedback control systems. Covers block diagram, flow charts.
Bode, Nyquist, and root locus techniques.

**EEL 4657L Linear Controls Laboratory (1) EN EGE**
PR: EEL 3100; CR: EEL 44657. This laboratory introduces students
to the techniques needed for the design and implementation of
automatic industrial control systems. Students will learn the
basics of the software and hardware used for the design and
implementation of control systems.

**EEL 4705 Logic Design (3) EN EGE**
PR: EGN 3373 with a minimum grade of B for EE students only.
Binary number systems; truth functions; Boolean algebra;
canonical forms; minimization of combinational logic circuits;
synchronous logic circuits in computers.

**EEL 4705L Logic and Laboratory (1) EN EGE**
CR: EEL 4705. Develop designs and demonstrate logic concepts.
Schematic capture for design implementation, simulation and
design verification.

**EEL 4743L Microprocessor Laboratory (1) EN EGE**
CR: EEL 4744. Introduction of microprocessors and
microcontrollers for data entry, processing, display and real time
signal input/output and control.

**EEL 4744 Microprocessor Principles and Applications (3) EN EGE**
PR: EEL 4705. Functional Description. Arithmetic and Logic
capabilities. Control and Timing. Interrupts and priority systems.
Software design and documentation. Distributed function
processing.

**EEL 4748 Microprocessor-Based System Design and Application (3) EN ESB**
PR: CDA 3201, CDA 3201L. Study of techniques for design of
microprocessor-based systems used in various applications.
Includes a project on development of an experimental application
system.

**EEL 4756 Signal and Image Processing (3) EN ESB**
PR: EGN 4450, EEL 4851C. Sampling and quantization of
signals and images; frequency-domain representations,
transformations; filtering, convolution, and correlation; low-level
image analysis algorithms; color images; fast methods and parallelism.

**EEL 4751C Distributed Processing and Computer Networks (3) EN ESB**
PR: EEL 4851C. Design and analysis of distributed processing
systems. Covers communication hardware and software, network
operating systems, and reliability enhancement techniques.

**EEL 4782 Computer Information Networks for Information Technology (3) US EIT**
The course covers concepts of computer networks. Physical
and logical structures are presented. Physical media, circuit
switching, data flow, high-level protocols, and the ISO model are
covered. Wired and wireless topologies are presented.

**EEL 4782L Information Networks Laboratory for Information Technology (1) US EIT**
CR: COP 4810 or C.1. The lab section of this course will allow
students to apply hardware and software concepts discussed in
the lecture portion of the class. Special isolated networking labs
provide both software and hardware tools for student experimentation.

**EEL 4851C Data Structures (3) EN ESB**
PR: CDA 3103, COP 3514 and Degree Program Admission. CSE
majors only. Understand and implement fundamentals of concise
data structure and organization for program efficiency, clarity and
simplification. Implementation of different data types and
structures. Understanding of current data structures.

**EEL 4852C Data Base Systems (3) EN ESB**
PR: EEL 4851C. Fundamentals of data base management
systems. CODASYL, network, hierarchical, and relational data
base systems are analyzed, and typical applications are
presented.

**EEL 4854 Data Structures and Algorithms for Information Technology (3) US EIT**
PR: COP 3515 or C1. Representing data for manipulation by the
computer is studied. Design and analysis of well-known data
structures and algorithms to manipulate them, are studied.
Program efficiency, clarity and speed are considered in various
structures and algorithms.

**EEL 4905 Independent Study (1-5) EN EGE**
CR: CI. S/U only. Specialized independent study determined by
the student's needs and interests.

**EEL 4906 Professional Issues and Engineering Design MW (3) EN EGE**
CR: EEL 4301, EEL 4512C, EEL 4657, EEL 4744. An introduction to
engineering design with applications specific to practical
engineering problems. Included are discussion of real-world
issues as economics, safety, ethics and the environment.

**EEL 4914 Senior Project Design (3) EN EGE**
PR: EEL 4906 and Senior Standing, CI. Students apply the
knowledge acquired in the classroom to design a system which
meets a predetermined set of specifications. Students work
individually or in small groups with a faculty member (project
director) in their area of interest. (Majors only.)

**EEL 4935 Special Electrical Engineering Topics I (1-4) EN EGE**
EEL 4936 Special Electrical Engineering Topics II (1-4) EN EGE
EEL 4937 Special Electrical Engineering Topics III (1-4) EN EGE
EEL 5250 Power System Analysis (3) EN EGE
PR: EGN 3375. Analysis and design technique for AC power
systems.

**EEL 540C Digital CMOS/VLSI Design (3) EN EGE**
PR: EEL 4705 or GS. Design, layout, simulation, and test of
custom digital CMOS/VLSI chips, using a CMOS cell library and
state-of-the-art CAD tools. Digital CMOS static and dynamic
gates, flip flops, CMOS array structures commonly used in digital
systems. Top down design example of a bit slice processor.

**EEL 5356 Integrated Circuit Technology (3) EN EGE**
PR: EEL 4351 or GS. Physics and Chemistry of integrated circuit
design and discrete device fabrication, materials limitations, processing
schemes, failure and yield analysis. A laboratory is integral to the
course.

**EEL 5357 Analog CMOS/VLSI Design (3) EN EGE**
PR: EEL 4301 or GS. Design of analog circuits for CMOS/VLSI
design. Op amps, comparators, D to A and A to D converters.
Switched capacitor filters. Analog simulation.

**EEL 5362 Physical Basis Of Microelectronics (3) EN EGE**
PR: EEL 4471 or GS. Quantum mechanics with emphasis on
electronic properties in atoms, molecules, and crystals; quantum
statistics; energy band theory; crystal structures; defect chemistry;
semiconductor properties.

**EEL 5462 Antenna Theory (3) EN EGE**
PR: EEL 4471 or GS. Antenna theory beginning with fundamental
parameter definitions and continuing with mathematical concepts,
elemental antennas and arrays.

**EEL 5470 Local and Metropolitan Area Networks (3) EN EGE**
PR: EEL 4512C or GS. Basics of data communication exchange
of digital information over communication media; Basics of
LANS/MANs and its components: media topologies, access
methods, etc.; LAN/MAN architectures and protocols-IEEE
EEL 5937 Special Electrical Engineering Topics III  (1-3) EN EGE
PR: EEL 4705 or CI. Arithmetic systems, processing structures, efficient algorithms, DSP hardware, TI, NEC and other DSP microprocessors, multiprocessing hardware and software. System development. Application to telecommunications and voice processing.

EEL 5935 Special Electrical Engineering Topics I  (1-3) EN EGE
PR: EDF 3214, EDF 4430 and EEX 4011. CR: EEX 4941 and EEX 4846. Designed to provide teacher candidates with carefully planned and supervised clinical experiences with exceptional students populations in a variety of settings. Candidates demonstrate the ability to apply concepts, theories and research. Repeatable up to six credit hours.

EEX 5224 Integrating Exceptional Students in the Regular Classroom  (3) ED EDS
PR: EEX 4011 or equivalent or DPR. Procedures for implementing educational programs for exceptional students and adults. Topics include service delivery, curriculum, academic remediation, advocacy, utilization of ancillary services, alternative programs and community resources.

EEX 4064 Behavior Management for Special Needs and At-Risk Students (3) ED EDS
PR: EEX 4936 Senior Seminar in Exceptional Student Education (1) ED EDS

EEX 4940 Practicum in Exceptional Student Education  (1-4) ED EDS
CR: EEX 4936. S/U only. One full semester of internship in an accredited public or private school.

EEX 4941 Practicum in Exceptional Student Education  (1-6) ED EDS
Repeatable up to six credit hours.

EEX 5752 Working With Families: A Pluralistic Perspective (3) ED EDS
PR: Introductory course in special education, GS. The impact of the socio/educational environment on the education of at-risk children and children with disabilities; family systems theory, principles of multi-cultural education, strategies for working effectively with families of school-age children, diverse cultures and family structures represented in school populations.

EGI 4941 Undergraduate Supervised Practicum in Gifted Student Education  (1-6) ED EDS
Organized, supervised experiences with gifted children. Specific experiences may be either a combination of observation and assistance with gifted children or individualized projects.

EGI 5051 Nature and Needs of the Gifted (3) ED EDS
This survey course examines the characteristics, educational needs of children and youth who are gifted, including those from special populations. Emphasis is on giftedness as defined historically, nationally and locally. The course also explores changing views of intelligence and talent development related to policy and practice in gifted education as well as the processes of identification and programming.

EGN 2031 History of Technology HP (3) EN EGB
Covers the evolution of technology and its influence on society from pre-historic man to the modern day. Topics include: seven technological ages of man, methods of producing power, materials, transportation, communication and calculation, and technology and society.

EGN 2080 Light and the Arts: A Quantitative Approach FA (3) EN EGB

EGN 2081 Circuit Mathematics and Physics (2) EN EGB
Remedial work on the mathematical and physical concepts that are necessary for EGN 3373. Differentiation and integration, complex numbers, phasors, vectors, the physical laws for resistors, capacitors, and inductors.

EGN 2082 History of Electrotechnology HP (3) EN EGB
Highlights of the history of electrotechnology and its relation to the development of civilization. The contributions of Volta, Faraday, Morse, Bell, Marconi, Franklin, etc. in the context of the development of western civilization. The impact of communications, electronics and computers in the twenty-first century.

EGN 2210 Computer Tools for Engineers (3) EN EGB
PR: MAC 2281. Students will be introduced to computer based engineering tools and their application to the solution of engineering problems. The programming language, FORTRAN, will be the most emphasized tool, but coverage will also be given to other engineering/mathematical tools such as equation solving tools and spreadsheets.

EGN 3000 Fundamentals of Engineering (1) EN EGB
Introduction to the profession of engineering. Exposure to the different disciplines of engineering incorporate examples of tools and techniques used in design and presentation.
EGN 3311 Statics (3) EN EGB

EGN 3321 Dynamics (3) EN EGB
PR: EGN 3311. Dynamics of discrete particles; kinetics and kinematics for rigid bodies. Lec.

EGN 3331 Mechanics of Materials (3) EN EGB
PR: EGN 3311. Stress, strain, Hooke’s Law; torsion, beam, column analysis; combined stresses; inelastic effects, limit design. Lec.

EGN 3331L Mechanics of Materials Laboratory (1) EN EGB

EGN 3343 Thermodynamics I (3) EN EGB

EGN 3353 Basic Fluid Mechanics (3) EN EGB

EGN 3358 Thermodynamics, Fluids, and Heat Transfer (4) EN EGB
PR: PHY 2049. Thermodynamic concepts of energy, entropy, work and heat and thermodynamic cycles. Basic concepts of fluid mechanics, including viscous fluids, pipe flow with minor losses, simple fluid machinery, momentum and external flow. Steady state conductive and convective heat transfer.

EGN 3365 Materials Engineering I (3) EN EGB
PR: CHM 2046; CR: EGN 3311. Structure and property relationships in engineering materials, i.e., metal, ceramic and polymer systems. Environmental effects are also treated.

EGN 3373 Introduction to Electrical Systems I (3) EN EGB

EGN 3374 Introduction to Electrical Systems II (3) EN EGB
PR: EGN 3373 with a minimum grade of B. CR: MAP 2302. A second course in linear passive circuits (following EGN 3373). An extension of the physical principles and models, AC/DC steady-state, transient analysis and power analysis techniques.

EGN 3375 Electromechanical Systems (3) EN EGB
PR: EGN 3373 with a minimum grade of B. Analysis of electromechanical device performance: transformers, transducers, DC motors and generators, AC motors and alternators.

EGN 3420 Engineering Analysis (3) EN EGB
PR: MAC 2282. Introduction to aspects of matrix algebra and complex analysis, which are essential in engineering; simultaneous equations, connection matrices, basic eigenvalue theory, the complex exponential.

EGN 3443 Modeling and Analysis of Engineering Systems (3) EN EGB
PR: MAC 2283, PHY 2049. Dynamic analysis of electrical, mechanical, hydraulic and thermal systems; Laplace transforms; numerical methods; use of computers in dynamic systems; analytical solution to first and second order ODEs. Restricted to majors.

EGN 3443 Engineering Statistics I (3) EN EGB
PR: MAC 2282. An introduction to the basic concepts of statistical analysis with special emphasis on engineering applications.

EGN 3613C Engineering Economy I (3) EN EGB
A study in analyzing the economic limitations imposed on engineering activities using basic models which consider the time value of money.

EGN 3615 Engineering Economics with Social and Global Implications SS (3) EN EGB
Presents basic economic models used to evaluate engineering activities and an understanding of the social and ethical implications of financial decisions in a multicultural environment through lectures, case studies and current readings.

EGN 3835 Globalization and Technology (3) EN EGB
Exploration of the fundamental processes underlying globalization with particular emphasis on the role of technological development in both historical and contemporary context.

EGN 4366 Materials Engineering II (3) EN EGB
PR: EGN 3365. Applications and structure property relationships of commonly used engineering materials. Steel, nonferrous alloys and their welding, heat treatment and processing. Introduction to ceramic and polymeric materials.

EGN 4420 Numerical and Computer Methods in Engineering (3) EN EGB

EGN 4440 Introduction to Linear Systems (2) EN EGB
PR: MAC 2282. Study and application of matrix algebra, differential equations and calculus of finite differences.

EGN 4831 Technology and Society MW (3) EN EGB
Non-technical survey of engineering activities: utilities, nuclear power, genetics weaponry, space, etc. Students conduct individual in-depth study of environmental/ethical problem.

EGN 4905 Independent Study (1-5) EN EGB
PR: CII. Specialized independent study determined by the students’ needs and interests.

EGN 4930 Special Topics in Engineering (1-3) EN EGB
PR: CI. New technical topics of interest to engineering students.

EGN 5421 Engineering Applications for Vector Analysis (3) EN EGB
Vector methods in electromagnetism and fluid mechanics. Vector operators, line and flux integrals, potential and transport theorems, applications.

EGN 5422 Engineering Applications of Partial Differential Equations (3) EN EGB

EGN 5423 Neural Networks and Mathematics for Communication (3) EN EGB

EGN 5424 Engineering Applications of Complex Analysis (3) EN EGB
Analytic functions, conformal mapping, residue theory, Laurent series, transforms. Applications to various problems in engineering and physics.

EGN 5425 Engineering Applications of Advanced Matrix Computations (3) EN EGB
Survey of theory and software for matrix computations: factorization methods, least squares and pseudoinverses, eigenvector algorithms. Special matrices and representations for control system and finite element applications.

EGN 1113 Introduction to Design Graphics (3) EN EGB
The student learns how to graphically represent technical designs using sketches, traditional drawing tools, and AutoCAD. The lab features twenty Pentium II computers running AutoCAD R14.

EIA 3192 Technology Education and Society (4) ED EDV
Introduction to programs, facilities and opportunities in teaching Technology Education rundowns historical, current and futuristic implications of technology in society.

EIA 4360 Special Teaching Methods: Technology Education (3) ED EDV
Equips Technology Education instructors with professional competencies for classroom and laboratory settings. Includes the selection of appropriate methods, planning, and delivery of instruction, along with supervision of students in laboratory areas.

EIN 3241 Ergonomics I (3) US EIT
Using the fundamentals of the design process, this course demonstrates the critical importance of ergonomic tools and underlining physical human capacities.

EIN 4242 Ergonomics II (3) US EIT
PR: EIN 3241. This course applies the concepts of work design and measurements within the ergonomic arena to achieve work design that is ergonomically feasible and effective.

EIN 4243 Human Factors 6A (3) EN EGB
Design of man-machine systems, by taking into consideration both human and machine capabilities and limitations.

EIN 4312C Work Analysis (3) EN EGB
PR: EGN 3613C or EGN 3615, EGN 3443. Operation analysis and workspace design, work measurement, standard data, ergonomics, and labor costing.

EIN 4333 Production Control (3) EN EGB
PR: ESI 4312. Planning and control of production systems. Includes: forecasting and inventory control models, scheduling and sequencing, MRP, CPM/PERT, and resource requirements.
PR: EIN 4352 or equiv., majors only. The study of systems of manufacturing and economic principles are utilized to make technical investments in design, analysis and evaluation of man-machine systems.

EIN 5359 Technology and Finance (3) EN EGS
PR: CC, majors only. Human physiological limitations encountered in design, analysis and evaluation of man-machine systems.

EIN 5510 Manufacturing Systems Analysis (3) EN EGS
PR: CC, majors only. The study of systems of manufacturing entities such as machine tools, robots, and materials handlers. Emphasis is on mathematical description of integrated systems and system optimization.

EIV 4210 Program Management: Industrial-Technical Education (4) ED EDV
Planning, organizing, motivating and controlling of the learning environment in Industrial-Technical Education classroom and laboratories. Program standards for OSHA, program review, record keeping, and budgeting will be examined.

EIV 4360 Special Teaching Methods: Industrial-Technical Education (4) ED EDV
Instructional techniques in industrial-technical education. Vocational Industrial Clubs of America activities may be included.

EIV 5315 Program Management: Diversified Cooperative Training (3) ED EDV
Organization, coordination, and budgeting of adult, cooperative, and special programs.

ELD 4901 Introduction to Specific Learning Disabilities (3) ED EDS
PR: EEX 4011 or DPR. Characteristics, needs and abilities of children with SLD. Emphasis is on theories, issues, trends, and philosophy of problems for such children.

ELD 4905 Independent Study: Specific Learning Disabilities (1-3) ED EDS
PR: DPR, S/U only. Specialized independent study determined by student's needs and interests.

ELD 4909 Directed Study: Specific Learning Disabilities (1-3) ED EDS
PR: Senior standing, DPR. To extend competency in teaching field.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EML 3701</td>
<td>Fluid Systems</td>
<td>3</td>
<td>Principles of fluid flow; piping and duct systems; fluid machinery; metering of compressible and incompressible flow; boundary layer theory; dimensional analysis; introduction to aerodynamics.</td>
</tr>
<tr>
<td>EML 4231</td>
<td>Visual Basic for Engineers and Scientists</td>
<td>3</td>
<td>Introduces students to the powerful graphical interface language of Visual Basic. Illustrates the use of the language in engineering and science applications.</td>
</tr>
<tr>
<td>EML 4106C</td>
<td>Thermodynamics and Economics</td>
<td>3</td>
<td>Power and refrigeration cycles; fuels and combustion; internal combustion engine cycles; co-generation; nuclear energy; methods of economic analysis.</td>
</tr>
<tr>
<td>EML 4124</td>
<td>Heat Transfer</td>
<td>3</td>
<td>Conduction, convection and radiant heat transfer; thermal properties of materials; role of fluid flow in convective heat transfer; design and selection of heat exchangers.</td>
</tr>
<tr>
<td>EML 4325</td>
<td>Mechanical Manufacturing Processes</td>
<td>3</td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4395</td>
<td>Motor Selection and Control</td>
<td>3</td>
<td>Standard electrical voltages; power wiring in industrial plants; NEMA motor designs and their uses; techniques for estimating motor starting times and temperature rise; motor selection, starting, and operating safety interlocks; conventional starting and control systems; programmable controllers; electrical code requirements for conductors and protective devices.</td>
</tr>
<tr>
<td>EML 4414</td>
<td>Power Plant Engineering</td>
<td>3</td>
<td>The study of large scale thermo-electric power conversion for utility systems. Combustion of hydrocarbon fuels, furnace, steam generated auxiliary system design. Topics include control of our emissions, design and performance of combined power facilities.</td>
</tr>
<tr>
<td>EML 4419</td>
<td>Propulsion I</td>
<td>3</td>
<td>Introduction to the design of propulsion systems. Basic analysis of internal combustion, jet and rocket engines. Application to ground and air transportation. Advanced propulsion concepts. Special topics for class discussion.</td>
</tr>
<tr>
<td>EML 4421</td>
<td>Internal Combustion Engines</td>
<td>3</td>
<td>This course is for the application of thermodynamics, chemistry, dynamics of machinery, electronics and fluid mechanics. Topics covered are introduction of engines, fuels and combustion, numerical modeling, ignition, fuel systems, balance of reciprocating mechanisms and emission control of exhaust pollutants.</td>
</tr>
<tr>
<td>EML 4501</td>
<td>Machine Design</td>
<td>3</td>
<td>Designed to teach students to apply the principles of engineering mechanics, materials and manufacturing to the design/analysis of machine elements and mechanical systems. Emphasis is given toward good design practice as well as pitfalls that can result in a catastrophic failure.</td>
</tr>
<tr>
<td>EML 4551</td>
<td>Capstone Design</td>
<td>3</td>
<td>Comprehensive design or feasibility study project requiring application of previously acquired engineering knowledge; use of ANSYS, CAD AND Pro/E.</td>
</tr>
<tr>
<td>EML 4552</td>
<td>Senior Mechanical Design</td>
<td>3</td>
<td>Comprehensive design or feasibility study project. In some cases may be a continuation of EML 4551.</td>
</tr>
<tr>
<td>EML 4601</td>
<td>Air Conditioning Design</td>
<td>3</td>
<td>Application of thermodynamics, heat transfer, and fluid and air systems. Heating and cooling calculations, air requirements, equipment sizing. Energy Code requirements. Design project.</td>
</tr>
<tr>
<td>EML 4905</td>
<td>Independent Study (1-4)</td>
<td>1-4</td>
<td>Specialized independent study determined by the student’s needs and interests.</td>
</tr>
<tr>
<td>EML 4930</td>
<td>Special Topics in Mechanical Engineering</td>
<td>1-4</td>
<td>Introduction to the techniques and types of professional writing, including correspondence and reports most often found in business, technical, and scientific communities.</td>
</tr>
<tr>
<td>ENC 1101</td>
<td>Composition I</td>
<td>6</td>
<td>Instruction and practice in the skills of writing and reading.</td>
</tr>
<tr>
<td>ENC 1102</td>
<td>Composition II</td>
<td>6</td>
<td>Instruction and practice in the skills of writing and reading.</td>
</tr>
<tr>
<td>ENC 1121</td>
<td>Composition I: Honors 6A EC (3)</td>
<td>3</td>
<td>Reserved for students in University Honors. Honors Section of ENC 1102.</td>
</tr>
<tr>
<td>ENC 2210</td>
<td>Technical Writing</td>
<td>3</td>
<td>Reserved for students in University Honors. Honors Section of ENC 1102.</td>
</tr>
<tr>
<td>ENC 2350</td>
<td>Professional Writing</td>
<td>3</td>
<td>Focuses on writing concerns of engineers. Deals with the content, organization, format, and style of specific types of engineering documents. Provides opportunity to improve oral presentations. Will not be counted toward the English major.</td>
</tr>
<tr>
<td>ENC 3310</td>
<td>Expository Writing</td>
<td>3</td>
<td>Introduction to the techniques and types of professional writing, including correspondence and reports most often found in business, technical, and scientific communities.</td>
</tr>
<tr>
<td>ENC 4260</td>
<td>Advanced Technical Writing</td>
<td>3</td>
<td>A course designed to develop writing skills of a high order: technical exposition; technical narration, description, and argumentation; graphics; proposals; progress reports; physical research reports; and feasibility reports.</td>
</tr>
</tbody>
</table>
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ENL 4311 Advanced Composition (3) AS ENG
PR: ENL 3335 or CI. Instruction in practical in writing effective, lucid, and compelling prose, with special emphasis on style, logical argumentation, and critical thinking.

ENL 4391 Selected Topics in Professional and Technical Writing (3) AS ENG
PR: ENL 3250, ENL 2210, or ENL 3310 or CI. Focus of the course will be determined by student demand and instructor interest. Topics to be covered may include legal writing, the conventions of business writing, writing in the medical fields, and writing for the social sciences. May be taken twice for credit with different topics.

ENG 4013 Literary Criticism (3) AS ENG
A study of the works of major literary critics from Aristotle to the present, with emphasis on their meaning, their implied world view, and their significance for our own time and literature. Required for Literature majors.

ENG 4060 History of the English Language (3) AS ENG
The evolution of language from Anglo-Saxon through Middle English to Modern English. Development of the English lexicon. Changes in the pronunciation, syntactic, and semantic systems; discussion of the forms which influenced them.

ENG 4096 Individual Research (1-4) AS ENG
PR: CC. Directed research in special topics.

ENG 4097 Directed Reading (3) AS ENG
PR: CC. Readings in special topics.

ENG 4935 Honors Seminar I (3) AS ENG
PR: Admission to English Honors Program. CR: ENG 4936. Variable topics. Students will be expected to participate in class discussion, make formal presentations, and complete a major research project.

ENG 4936 Honors Seminar II (3) AS ENG
PR: Admission to English Honors Program. CR: ENG 4935. Variable topics. Students will be expected to participate in class discussion, make formal presentations, and complete a major research project.

ENG 4970 Honors Thesis (3) AS ENG
PR: ENG 4935, ENG 4936. For students writing English Honors theses.

ENL 3015 British Literature to 1616 (3) AS ENG
A survey of representative prose, poetry, and drama from its beginnings through the Renaissance, including such poems and figures as Beowulf, Chaucer, Malory, More, Hooker, Skelton, Wyatt, Sidney, Spenser, Shakespeare, Donne, and Jonson.

ENL 3230 British Literature 1616-1780 (3) AS ENG
A survey of 17th century and Neoclassical literature, including such figures as Donne, Herbert, Crashaw, Vaughan, Marvell, Milton, Pope, Swift, Johnson, Boswell, and Goldsmith.

ENL 3251 British Literature 1780-1900 (3) AS ENG
The poetry and poetics of the Romantic figures, with attention to the continuing importance of Romantic thinking in contemporary affairs and writers; a survey of representative figures of the Victorian and Edwardian periods, including poetry, prose, and drama.

ENL 3273 British Literature 1900-1945 (3) AS ENG
Survey of poetry, drama, and fiction of such writers as Eliot, Yeats, Thomas, Conrad, Shaw, Joyce, Lawrence, Huxley, Woolf, Forster, Waugh, Owen, Auden, O'Casey, and others.

ENL 3331 Early Shakespeare (3) AS ENG
A study of from five to eight of Shakespeare's problem plays, major tragedies, and late romances. Special attention to the development of the student's ability to read and interpret the text.

ENL 3332 Late Shakespeare (3) AS ENG
A study of from five to eight of Shakespeare's problem plays, major tragedies, and late romances. Special attention to the development of the student's ability to read and interpret the text.

ENL 3334 Shakespeare from an Historical Perspective HP (3) AS ENG
Examines the plays of Shakespeare from the Renaissance to the present. Lectures will be available on audio tapes. Will not be counted toward the English major.

ENL 4122 19th Century British Novel (3) AS ENG
1) Study of the 19th-century British novel, including works by novelists such as Thackeray, Dickens, Eliot, Hardy, Trollope, and others. 2) Analysis of the characteristics of the novels and their historical, social, cultural, and political contexts.

ENL 4132 British Novel: Conrad to the Present (3) AS ENG
A critical study of British fiction from 1900 to the present, with emphasis on such writers as Conrad, Lawrence, Joyce, Woolf, Huxley, Orwell, Burgess, Murdoch, Golding, and others.

ENL 4303 Selected British Authors (3) AS ENG
The study of two or three major figures in British Literature. The course may include such writers as Fielding and Austen, Keats and Yeats, Joyce and Woolf. Specific topics will vary. May be taken twice for credit with different topics.

ENL 4311 Chaucer (3) AS ENG
An intensive study of <i>The Canterbury Tales</i>/ and major critical concerns.

ENL 4338 Advanced Studies in Shakespeare (3) AS ENG
PR: ENL 3331 or ENL 3332, or CI. Intensive study of selected plays of Shakespeare, with special attention to significant critical issues and to the Elizabethan and Jacobean cultural setting.

ENL 4341 Milton (3) AS ENG
Study of the poetry and major prose of John Milton, with special emphasis on <i>Paradise Lost</i>/.

ENV 4001 Environmental Systems Engineering (3) EN EGX
CR: EGN 3353. An introduction to various aspects of environmental problems faced by today's society. Topics covered are: air pollution, water pollution, noise pollution, solid waste management, ionizing radiation, disease transmission, and food protection.

ENV 4004L Environmental/Hydraulics Engineering Lab (1) EN EGX
PR: EGN 3353. CR: ENV 4001. Laboratory experience in the measuring of environmental and hydraulic parameters.

ENV 4311 Solid Waste Engineering (2) EN EGX
Introduction to the principles of integrated municipal solid waste management; waste minimization, recycle and disposal options. Design of landfill disposal systems. Course restricted to Civil and Environmental Engineering majors.

ENV 4417 Water Quality and Treatment (3) EN EGX
PR: EGN 3353. An introduction to municipal water supply and waste water treatment. Topics include water requirements and waste volumes, water quality, physical and chemical treatment processes, and advanced wastewater treatment processes.

ENV 4502 Water Treatment Engineering (3) EN EGX
PR: EGN 3353, CR: ENV 4001. The theory and design of unit processes normally used in environmental engineering such as agitation and mixing of liquids, filtration, leaching, gas absorption, sedimentation and clarification, drying, and evaporation.

ENV 4503 Wastewater Treatment Engineering (3) EN EGX
PR: ECH 3023C, EGN 3353, ENV 4001. The theory and design of unit processes normally used in environmental engineering such as coagulation of colloidal materials, water stabilization, water softening and neutralization, ion exchange, and adsorption and oxidation processes for removal of iron and magnesium.

ENV 4552C Environmental Unit Operations and Processes (3) EN EGX
PR: ENV 4001, ENV 4417 or CI. Theoretical, experimental investigation, and modeling of operations and processes in engineered and natural systems. Laboratory evaluation of unit processes and operations used in water and wastewater treatment including chlorination, activated carbon absorption, biological treatment, gas/liquid mass transfer, filtration, coagulation, flocculation, and settling. Application of experimental data to process analysis and design. Field monitoring of surface water quality; simulation of transport and transformation of pollutants in surface waters.

ENV 4891 Capstone Environmental Engineering Design MW (3) EN EGX
PR: CWR 4103, ENV 4001, ENV 4417. A capstone environmental design experience for seniors in Civil and Environmental Engineering. A design oriented course to design both industrial and domestic water treatment and water transport systems and wastewater and collection systems. The course emphasizes the design procedure normally used in engineering practice.
ENV 5345 Solid Waste Control (3) EN EGS
PR: CI. Undergraduate preparation in environmental engineering, or graduate standing in environmental engineering or an environmental science program. Introduction to solid waste management, including its definition as an umbrella for hazardous waste; regulatory concepts; waste types, quantities, and characterization; collection and recycling; facility siting; disposal; thermal treatment.

ENV 5504C Environmental Engineering Processes (3) EN EGS
PR: ENV 4001, ENV 4004L, ENV 4117 Theory, experimental investigation, and modeling of operations and processes in engineered and natural systems. Laboratory evaluation of unit operations and processes used in water and wastewater treatment including chlorination, activated carbon adsorption, biological treatment, gas/liquid mass transfer, filtration, coagulation, flocculation, and settling. This course is restricted to majors, has no external laboratory section associated with the course, is not available on an S/U basis only, is not cross-listed with another college or department or college. Required. Lecture and Laboratory.

ENY 3004C Introduction to Entomology (4) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L & CHM 2045, CHM 2046 & MAC 1105 or higher-level MAC course, or STA 2023. CP: PCB 3023 or PCB 3043 or PCB 3083 or PCB 3712. An introduction to general aspects of insect morphology, development, and classification. The identification of local forms will be emphasized. Fieldwork required. Lecture and Laboratory.

ENY 5505C Acoustic Entomology (4) AS BIO
PR: ENY 3004C and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023 and CI: CP: PCB 3023 or PCB 3043 or PCB 3083 or PCB 3712 and MAC 2211. Taxonomy, development, and ecology of aquatic insects with emphasis on local forms. Fieldwork required. Lecture and Laboratory.

EPH 5051 Advanced Theories in Motor and Physical Disabilities (3) ED EDS
PR: EEX 4011 or DPR. Biological and functional aspects of motor and physical health disabilities, including dysfunctions in central nervous system covering motor, sensory, language and psychological disorders.

EPH 5321 Educational Strategies for Physically and Multihandicapped Students (3) ED EDS
PR: EPH 5051. Educational management of students with cerebral palsy; motor disabilities and multihandicapped conditions including rehabilitation and other community services.

ESC 4705 Geology and Development of Modern Africa MW 2 (3) AS GLY
In-depth look at how geology has affected the politics, history and culture of Africa. Units include the Nile and hydropolitics, deserts and climate, riftng and hominid evolution, and mining and politics.

ESE 4322 Classroom Management for Diverse School and Society (3) ED EDI
Focuses on classroom management in secondary schools including classroom climate, specific strategies to address management issues, school safety, violence, diversity, ethics, and educational law.

ESE 5342 Teaching the Adolescent Learner (3) ED EDI
Emphasis is placed on adolescent developmental and learning needs linking them to practices in the classroom appropriate to the diverse secondary education population (ESOL, special education, multicultural, at-risk, etc.) in preparation for planning responsive standards-based instruction.

ESE 5344 Crisis Management for a Diverse School and Society (3) ED EDI
This course covers practical, theoretical, philosophical and ethical aspects of school and society, the education profession, and selected schools with particular focus on crisis management, school violence, school safety, educational law and other critical social issues.

ESI 4221 Industrial Statistics and Quality Control (3) EN EGS
PR: EGN 3443. Application of statistical techniques to the control of industrial processes. Control charts, acceptance sampling, design of experiments, analysis of variance and regression.

ESI 4244 Design of Experiments (3) EN EGS
PR: EGN 3443. Activity sampling, design of experiments and control. Design and use of inventory control models, both designs applicable to engineering analyses. Analysis of variance and regression.

ESI 4312 Deterministic O. R. (3) EN EGS
PR: COP 2510, EGN 4450. An introduction to operations research techniques with particular emphasis on deterministic models. Linear programming, dynamic programming, goal programming, integer programming, and PERT/CPM networks are considered.

ESI 4313 Probabilistic O. R. (3) EN EGS

ESI 4523 Industrial Systems Simulation (3) EN EGS
PR: ESI 4313. A study of the development and analysis of computer simulation models: Monte Carlo, time-slice, and next-event. Introduction to special purpose simulation languages.

ESI 4905 Independent Study (1-5) EN EGS
PR: CI. S/U only. Specialized independent study determined by the student’s needs and interests.

ETG 3612 Operations Management (3) EN ESB
PR: MAC 1105, CR: STA 2023. This course examines global strategies, project management, forecasting, location, scheduling, human resources, quality and math models as applied to the design and management of industrial operations.

ETG 3933 Selected Topics in Technology (1-5) EN ESB
Selected Topics in Technology is repeatable for credit for 12 hours.

ETG 3934 Selected Topics in Technology (1-5) EN ESB
Selected Topics in Technology is repeatable for credit for 12 hours.

ETG 4931 Special Topics in Technology I (1-5) EN ESB
PR: CI. No credit for Engineering Majors.

ETG 4932 Special Topics in Technology II (1-5) EN ESB
PR: CI. No credit for Engineering Majors.

EHI 4116 Industrial Quality Control (3) US EIT
PR: STA 2023. This course teaches the student the fundamental concepts of managing a quality assurance system.

EHU 2011 Ancient History I HP 3 (3) AS HTY
An introductory survey of ancient history. EHU 2011 treats the ancient Near East and Greece from the origins of civilization to the full development of the Hellenistic kingdoms prior to conflict with Rome.

EHU 2012 Ancient History II HP 3 (3) AS HTY
An introductory survey of ancient history. EHU 2012 deals with Rome through the Regal, Republican, and Imperial periods, from the beginnings of civilization in Italy to the division of the Roman Empire.

EHU 2021 Byzantium History HP 3 (3) AS HTY
A thematic survey of the history of the medieval Byzantine Empire and neighboring civilizations from ca. 284-1453.

EHU 2022 The Medieval World HP 3 (3) AS HTY
A thematic survey of Western European and Mediterranean civilizations from ca. 312-1453.

EHU 2030 Modern European History I HP 3 (3) AS HTY
A thematic survey of Europe in the modern era. EHU 2030 treats the period from the Renaissance to the French Revolution.
EUH 2031 Modern European History II (SP) AS HTY
A thematic survey of Europe in the modern age. EUH 2031, treats the period from the French Revolution to the present.

EUH 3142 Renaissance and Reformation (SP) AS HTY
A history of Europe from the Renaissance to the Thirty Years’ War (1400-1618). The cultural, social, and economic characteristics will provide the framework for artistic, philosophical, religious, and political developments.

EUH 3181 Medieval Culture (SP) AS HTY
A survey of the intellectual, cultural, and spiritual life of the Middle Ages. Medieval attitudes as manifested in literature, art, philosophy, education, and religion; with emphasis upon Medieval man’s changing perception of himself and his world.

EUH 3185 Viking History (SP) AS HTY
The role of the Vikings in the shaping of Western history. A comprehensive survey of their institutions, outlook and daily life. Viking expansion into Europe and North America.

EUH 3188 Medieval Society (SP) AS HTY
A study of the daily life and attitudes of the medieval nobleman, peasant, townsman, and the agrarian-urban economy and society which affected their lives.

EUH 3189 Medieval Politics (SP) AS HTY
An inquiry into the nature, distribution, and use of political power during the Middle Ages, in such institutions as feudalism, monasteries, cities, and the church.

EUH 3202 History of 17th and 18th Century Europe (SP) AS HTY
A history of Europe from the beginning of the Thirty Years’ War to the outbreak of the French Revolution. Political and intellectual developments will be assessed in the light of society and the economy.

EUH 3205 History of Nineteenth Century Europe (SP) AS HTY
A comparative study of economic, political, social, and intellectual developments of nineteenth-century Europe.

EUH 3206 History of Twentieth Century Europe (SP) AS HTY
A comparative study of economic, political, social, and intellectual developments in twentieth century Europe.

EUH 3401 Classical Greece (SP) AS HTY
A study of ancient Greece focusing on the brilliant period following the Persian Wars, but embracing as well the formative Bronze, Middle and Archaic ages, and the decline culminating in the conquest of Greece by Philip II of Macedon in 338 B.C.

EUH 3402 Age of Alexander (SP) AS HTY
A study focusing on the career of Alexander the Great and on the Greek and Macedonian conquest of Imperial Persia. Also treated are the great hellenistic kingdoms prior to Rome’s conquest of the eastern Mediterranean.

EUH 3412 Roman Republic (SP) AS HTY
A study of the Roman Republic from 509 B.C. to the assassination of Julius Caesar in 44 B.C., with a prelude treating Rome’s early development under royal rule. Political growth and change provide the framework for the treatment.

EUH 3413 Roman Empire (SP) AS HTY
A study of the Imperial Roman from the assassination of Julius Caesar in 44 B.C. to the death of the emperor Constantine in A.D. 337. Emphasized is Rome’s government of a vast Mediterranean empire including much of the near East and Europe.

EUH 3461 German History to 1870 (SP) AS HTY
A political, social, and cultural approach to the history of the Germans from 1500 through 1870, with emphasis on the Protestant Reformation, the rise of Brandenburg-Prussian, and the unification under Bismarck.

EUH 3462 German History 1870 to the Present (SP) AS HTY
A political, social, and cultural approach to the history of the German Empire from 1870 through the 1970’s. The nation’s two attempts to try for world power status are highlighted, as well as the Weimar Republic, prototype of the embattled democracy.

EUH 3501 British History to 1688 (SP) AS HTY
A study of major developments in British history from the 15th century to 1688.

EUH 3502 British History 1688 to Present (SP) AS HTY
A study of the major themes of British history since the Glorious Revolution, including social, political, and economic developments leading to the creation of the modern democratic welfare state.

EUH 3575 History of Imperial Russia, 1689-1917 (SP) AS HTY
A survey of political, social, and economic, and cultural development in the Russian Empire from Peter the Great to Nicholas II. Topics include the expansion and modernization of the Empire, the cultural characteristics of the Imperial court, peasant rebellions, social and legal reforms, the role of the West, and the collapse of the Romanov dynasty.

EUH 3576 History of the Soviet Union, 1917-1991 (SP) AS HTY
A study of Soviet society under communism from the Revolution to the collapse of the USSR. Topics include the origins and development of revolutionary socialism, the Bolshevik seizure of power, Stalinism and the Great Terror, popular dissent and resistance, the treatment and experience of ethnic minorities, Gorbachev and the dissolution of the Soviet Union.

EVS 3000 Europe SS (SP) AS INT
Area study courses are multi-disciplinary in nature and deal with one or more countries of a region. Each course combines some measure of political, economic, historical, religious, geographic, anthropological, and sociological analysis in dealing with salient features and current problems.

EVS 3022 Russia SS SP AF (SP) AS INT
Area study courses are multi-disciplinary in nature and deal with one or more countries of a region. Each course combines some measure of political, economic, historical, religious, geographic, anthropological, and sociological analysis in dealing with salient features and current problems.

EVR 2001 Introduction to Environmental Science NS (SP) AS ESP
An introductory lecture course linking the human and physical/ biological world. The course will develop an understanding of population and resource interactions.

EVR 2001L Environmental Science Lab (SP) AS ESP
A laboratory course linking the human and physical/biological world. The lab will develop an understanding of population and resource interactions and complement the lecture course. Field trips.

EVR 2002 Environmental Science: Regional and Global Issues NS (SP) AS ESP
This course will provide students with an understanding of the scientific principles underlying today’s global environmental problems and their potential solutions. We will examine how our social, political, and economic systems affect our environment.

EVR 2861 Introduction to Environmental Policy (SP) AS ESP
An introduction to environmental policy using class lectures, student projects, and independent readings. Emphasis will be placed on understanding basic policy mechanisms and major policy actions relating to environmental issues at the local, national, and international level.

EVR 4027 Wetland Environments MW (SP) AS ESP
PR: PCB 3043 or CI. Study of the general properties and ecology of wetlands, examination of the distribution and functions of wetlands, and consideration of wetland conservation and policies.

EVR 4104 Karst Environments NS (SP) AS ESP
PR: EVR 2001. The objective is to provide an understanding of the scientific principles pertaining to karst environments in Florida and around the world. Both physical processes and human interactions/impacts will be examined. Not restricted to majors and not repeatable.

EVR 4114 Climate Change NS (SP) AS ESP
PR: EVR 2001. The objective is to provide an understanding of the scientific principles pertaining to global and regional climate change. Both mechanisms causing the change and human impacts on climate will be examined. Not restricted to majors and not repeatable.

EVR 4219 Research Methods in Wildlife Ecology (SP) AS ESP
Research Methods in Wildlife Ecology will review the ways in which data are collected, analyzed, and reported, so that informed decisions about wildlife management and conservation can be made. The course will have both classroom and field components.

EVR 4900 Directed Readings (SP) AS ESP
To provide advanced students with interdisciplinary research experience in areas of specific interest.

EVR 4910 Environmental Science and Policy Project (SP) AS ESP
One to senior majors only. SU only. Environmental science project consisting of research in a field related to environmental science/environmental policy. Supervised by a faculty member. Contract and report required.

EVR 4920 Environmental Science and Policy Seminar (SP) AS ESP
Restricted to senior majors. SU/only. A topical reading and discussion seminar focusing on the interdisciplinary nature of environmental science and environmental policy.

EVR 4-1 Selected Topic NS (SP) AS ESP
Each topic is a course under the direction of a faculty member with the content depending on the interests of the students and
EVT 4940 Environmental Science Internship (3) AS ESP
Open to senior majors only. S/U only. Open for the purpose of this course is to provide the student’s understanding and application of environmental science and policy within a practical organizational context. Contract and report required.

EVT 4065 History and Principles of Vocational Education (4) ED EDV
An overview of current policies and principles in vocational education including their historical, sociological, and philosophical bases. Open to majors and non-majors.

EVT 4064C Professional Development in Industrial Technical Education (1-3) ED EDV
Designed for the ITE teacher in forming plans of professional development. Competencies include the development of a personal education philosophy; attributes in creating harmonious school community relationships; and desirable staff and teacher associations.

EVT 4165 Curriculum Construction: Industrial-Technical Education (4) ED EDV
Design, development, implementation and evaluation of effective curricular materials in industrial, technical and health related occupations; includes individualized and self-paced materials. Open to majors and non-majors.

EVT 4365 Basic Teaching Methods in Vocational Education (4) ED EDV
Examines the role of the vocational instructor in the teaching learning process; looks at factors that promote and inhibit learning. Recognition of the variety of instructional approaches, techniques and methods; includes selection of techniques for situations.

EVT 4367 Assessing Student Skill in Industrial Technical Education (4) ED EDV
Techniques for assessing student’s mastery of skills in industrial/technical education. Focuses on specific competencies including developing and administering performance tests, monitoring student progress, and others. Open to majors and non-majors.

EVT 4562 Vocational Education for Special Needs Students (4) ED EDV
Focuses on modifying the vocational education curriculum, laboratory, shop, student outcomes, learning activities, tests, media, etc. to accommodate the unique learning needs of minority, handicapped, disadvantaged, non-traditional and other special needs students.

EVT 4651 Equity in Schools and the Workplace 6A MW (3) ED EDV
Issues related to gender equity in schools and the workplace. Includes legal, ethical, psychological, sociological, and economic factors; males and females in traditional and non-traditional occupations.

EVT 4905 Independent Study: Industrial-Technical Education (1-4) ED EDV
PR: CI. S/U only. Specialized independent study determined by the student’s needs and interests.

EVT 4909 Directed Study: Industrial-Technical Education (1-3) ED EDV
PR: CI. To extend competency in teaching field.

EVT 4936 Senior Seminar in Industrial-Technical Education (2) ED EDV
PR: Senior standing; CR: EVT 4940. Synthesis of teacher candidate’s courses in complete college program.

EVT 4940 Internship: Industrial-Technical Education (1-12) ED EDV
CR: EVT 4936. S/U only. One full semester of internship in a public or private school. In special programs where the internship experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9-12 semester hours.

EVT 4948 Supervised Field Experience: Industrial-Technical Education (1-6) ED EDV
PR: CI. S/U only. Planned supervised functions in the area of specialization and coordinated with selected schools, government, offices, social agencies, business and industries on site.

EVT 5369 Preparation and Development for Teaching (4) ED EDV
The development of selected instructional materials, use of new educational media, performance evaluation instruments, and counseling techniques.

EVT 5664 School Community Development (3) ED EDV
Identifying, assessing, and analyzing, individual, institutional and community needs for the purpose of cooperative program planning, community involvement, and public support.

EXP 4104 Sensory Processes (3) AS PSY
PR: PSY 3213 with a grade of C or better. Available to both majors and non-majors. Psychophysical and neurophysiological data and theory underlying sensory processes. Visual, auditory, chemical, and somatosensory systems, with particular emphasis on visual processes.

EXP 4204C Perception (3) AS PSY
PR: PSY 3213 with a grade of C or better. Topics include sensory and physiological bases of perception and how people process relevant information in their environments.

EXP 4304 Motivation (3) AS PSY
PR: PSY 3213 with a grade of C or better. A survey of motivational processes and mechanisms from physiological and psychological viewpoints.

EXP 4404 Psychology of Learning (3) AS PSY
PR: PSY 3213 with a grade of C or better. A survey of methods, empirical findings, and theoretical interpretations in conditioning and instrumental learning.

EXP 4640 Psychology of Language (3) AS PSY
PR: PSY 3213. Historical survey of relationships between psychology and linguistics leading to the emergence of psycholinguistics as a field of study. The current status of theory and research in the field will be covered.

EXP 4680C Cognitive Psychology (3) AS PSY
PR: PSY 3213 with a grade of C or better. Survey of methods, empirical findings, and theoretical interpretations of human learning, information processing, verbal learning, and judgment and decision-making.

FIL 2000 Film: The Language Of Vision 6A FA (4) VP ART
An overview of the history of creative filmmaking from its beginnings to the present time. Open to both majors and non-majors.

FIL 3004 The Film as Mass Communication I: Syntax (3) AS COM
PR: MMC 2100 and MMC 3602 or DPR. The language, conventions, elements, and patterns of the film medium as related to current models of effective mass communication and new theories of nonverbal communication.

FIL 3400 Film as Mass Communication II (3) VP ART
A continuation of FIL 3004 to include the effective arrangements of scenes and sequences in motion picture and television films.

FIL 433C Beginning Film (3) VP ART
Intermediate problems in film with emphasis on the exploration of materials and media and the development of individual concepts.

FIL 3845 World Cinema 6A FA (4) VP ART
Offers international perspectives through an examination of films from around the world. Each week narrative films from acclaimed directors will be screened, read about and discussed.

FIL 4004 Social History of the Film, 1945 to the Present (3) AS COM
PR: MMC 2100 and MMC 3602 or DPR. The development of the film from 1945 to the present.

FIL 443C Advanced Film (3) VP ART
PR: FIL 3845. More advanced projects in filmmaking to further develop works both technicallly and conceptually.

FIL 5696C Cinematography (4) VP ART
PR: PSY 4520C. Advanced studio work using black and white, color and sound as technical and aesthetic factors in visual, artistic productions.

FIN 2104 Personal Finance (3) BA FIN
Not available for credit to upper-level students who have been admitted to the College of Business. May not be counted toward major requirements in FIN or GBA. Survey of the problems and techniques of personal financial planning. Includes consumer credit, insurance, home ownership, and personal investing, with attention given to current economic and legal constraints.

FIN 2106 Introduction to Investments (3) BA FIN
Not available for credit to upper-level students who have been admitted to the College of Business. May not be counted toward major requirements in FIN or GBA. Emphasizes the operations of the security markets and the risks and returns of alternative investment media. Designed for non-business administration majors.

FIN 2935 Selected Topics in Finance (1-6) BA FIN
Not available for credit to upper-level students who have been admitted to the College of Business Administration. Topics to be selected by department chair.

FIN 3233 Money and Banking (3) BA FIN
PR: ECO 2013. Examines the structure and operations of the U.S. monetary system, commercial banking, central banking, money, and capital markets, and provides an introduction to monetary theory and policy.
FIN 4303 Principles of Finance (3) BA FIN
PR: ACG 2071, ECO 2013, and ECO 2023. Study of the processes, decision structures, and institutional arrangements concerned with the use and acquisition of funds by a firm. Includes the management of the asset and liability structure of the firm under uncertain and risky situations. The financial decision process will include and recognize the international as well as domestic aspects of financial management.

FIN 3604 International Finance (3) BA FIN
PR: FIN 3403. Study of factors affecting international business, assessment of risks, international managerial finance, institutions and instruments of international business finance.

FIN 4245 Federal Reserve System and Monetary Policy (3) BA FIN
PR: FIN 3233 or CI. An analysis of the Federal Reserve System with special emphasis on monetary theory and the formulation and administration of monetary policy.

FIN 4303 Financial Institutions and Markets (3) BA FIN
PR: FIN 3403. A study of financial institutions and their roles in the capital markets; includes the savings allocation, investment, and financial decision making processes.

FIN 4324 Bank Management (3) BA FIN
CP: FIN 3403. Application of traditional finance concepts to the management of commercial banks with emphasis on decision making and problem-solving techniques to major problem areas in banking.

FIN 4412 Working Capital Management (3) BA FIN
PR: FIN 3403. An examination of short-term financial management - that is, policies and decisions related to managing the current operations of a firm. Topics to be covered include cash management, credit and collection policy, inventory decisions, and sources of short-term financing.

FIN 4414 Advanced Corporation Finance (3) BA FIN
PR: FIN 3403. An examination of the financial policies of corporations. Special reference to dividend policy, financial structure, capital expenditures, acquisitions, mergers, and reorganizations.

FIN 4443 Financial Policies and Strategies (3) BA FIN
PR: FIN 4414. A senior seminar for majors in Finance. Primarily a case course examining financial policies and the application of financial analysis to alternative strategies.

FIN 4461 Financial Statement Analysis (3) BA FIN
PR: FIN 3403. Provides an understanding of the relationship between financial statements produced in accordance with GAAP and the informational content such statements provide. After completing the course, the student should have a better understanding of the usefulness of published financial statements to various users in a variety of circumstances.

FIN 4504 Principles of Investments (3) BA FIN
PR: ECO 2013 and FIN 3403. Study of the risks and returns of investment media in relation to the investment objectives of individual and institutional investors. Includes an examination of the capital markets, information flows, and analytical techniques in terms of their impact on the valuation process.

FIN 4514 Advanced Investment Analysis and Management (3) BA FIN
PR: FIN 4504. A comprehensive study of security analysis and portfolio management. The course will utilize a quantitative approach to investment selection and management.

FIN 4905 Independent Study (1-3) BA FIN
PR: CI, CC. S/U only. Specialized independent study determined by the student’s needs and interests.

FIN 4915 Independent Research (1-3) BA FIN
PR: CI. The research project will be mutually determined by the student and instructor.

FIN 4934 Selected Topics in Finance (1-3) BA FIN
Topics to be selected by instructor and department chairperson on pertinent finance issues.

FLE 4290 Technology in the Foreign and Second Language Classroom (3) ED EDX
This course prepares pre-service and in-service teachers to infuse technology into foreign language and ESOL instruction. Students will develop technology skills and knowledge based on sound pedagogical principles that reflect research and theory in Second Language Acquisition and will apply this practical and theoretical knowledge to K-16 Foreign Language/ESOL instructional situations.

FLE 4314 Methods of Teaching Foreign Languages and ESOL in the Elementary School (3) ED EDX
PR: EDG 4620 or concurrent registration. Fluency in target language and in English. Methods of planning and teaching foreign languages in the elementary school. The emphasis is on teaching communicatively and on integrating culture in the K-6 classroom.

FLE 4316 Language Principles and Acquisition (1-3) ED EDX
PR: FLE 4317. Overview of applied Second Language Acquisition theory and the components of language, linking them to methods and techniques of providing comprehensible instruction and supporting the development of oral proficiency and literacy skills for (LEP) children.

FLE 4317 Teaching Students with Limited English Proficiency (3) ED EDX
This course is designed to prepare preprofessional teachers to provide linguistically and culturally appropriate instruction, assessment, and learning opportunities for students with Limited English Proficiency.

FLE 4333 Methods of Teaching Foreign Languages and ESOL in the Secondary School (3) ED EDX
PR: FLE 4314. Fluency in the target language and in English or DPI. Methods of teaching foreign languages within a communicative framework. Includes examination and practice of current instructional techniques in listening, speaking, reading and writing skills, testing, error correction, and computer assisted language instruction. Emphasis is on teaching foreign languages and teaching for cultural understanding at the secondary level 7-12.

FLE 4362 ESOL 1 - Curriculum and Pedagogy of ESOL (3) ED EDX
This course is designed to prepare pre-professional (pre-service) teachers to provide linguistically and culturally appropriate instruction, learning opportunities and assessment for English Language Learners (ELLs) in grades K-12.

FLE 4383 ESOL 2 - Literacy Development in English Language Learners (3) ED EDX
PR: FLE 4362 or FLE 4317. This course is designed to provide students with a critical understanding of instructional delivery which caters to the linguistic and literacy needs of minority/heritage communities. Providing students with a sociocultural-critical theoretical framework.

FLE 4384 ESOL 3 - Applying Linguistics to ESOL Teaching and Testing (3) ED EDX
PR: FLE 4362 and FLE 4363. This course provides an overview of the components of language, linking them to methods and techniques of providing comprehensible instruction to English Language Learners (ELLs) and supports the development of professional literacy skills.

FLE 4385 ESOL Competencies and Strategies (1-3) ED EDX
Designed to enable participants to meet the special limitations and cultural educational needs of LEP students in content area classes. Designed to provide a theoretical and practical foundation for ESOL competencies and strategies.

FLE 4370 Practicum in Foreign Language Teaching in the Secondary School (3) ED EDX
PR: Senior standing or enrollment in Plan II Master’s Program or DPR. Required concurrently with FLE 4314 or FLE 4333. Fluency in the target language and in English. Pre-internship field experience in a K-12 environment. Will include observation and practice in a K-12 classroom as well as class meetings.

FLE 4936 Senior Seminar in Foreign Language Education (2) ED EDX
PR: Senior standing. Required concurrently with internship. Synthesis of teacher candidate’s courses in complete college program.

FLE 4940 Internship: Foreign Language Education (1-12) ED EDX
Intern takes Senior Seminar in Education concurrently. S/U only. One full semester of internship in a public or private school.

FLE 5145 Language Principles, Acquisition and Teaching (3) ED EDX
PR: FLE 5345 Restricted to Education majors and not repeatable for credit. Overview of applied SLA theory and components of language. Methods & techniques of comprehensible instruction and the development of oral proficiency and literacy skills for LEP children.

FLE 5291 Technology in the Foreign Language Classroom (3) ED EDX
PR: FLE 5313 and FLE 5331. This course is intended to prepare foreign/second language teachers to provide pedagogically sound and technologically enhanced instruction for foreign language and second language students in the K-16 realm. Basic computer technology literacy is recommended.

FLE 5313 Methods of Teaching Foreign Language and ESOL in the Elementary School (3) ED EDX
This course is designed to provide training in the theory and methods of teaching foreign languages and ESOL in the elementary school (FLES) to both pre- and in-service teachers.

FLE 5331 Methods of Teaching Foreign Language and ESOL in the Secondary School (3) ED EDX
PR: FLE 5331. This course provides for the development of knowledge and skills necessary to prepare students to assume roles as foreign language (FL) and ESOL teachers at the secondary school level. It represents the second part of a sequence of methods courses.

FLE 5345 Teaching English Language Learners K-12 (3) ED EDX
This course is restricted to Education majors and is not repeatable for credit. It is designed to prepare preprofessional teachers to provide linguistically and culturally appropriate instruction, assessment, and learning opportunities for LEP students.

FLE 5366 ESOL Education in Content Areas (3) ED EDX
Enables participants to meet the special linguistic & cultural educational needs of limited English proficient (LEP) students in the content area classes. Provides a theoretical & practical foundation for ESOL competencies in courses include ESOL infusion.

FLE 5430 ESOL I - Theory and Practice of Teaching English Language Learners (3) ED EDX
This course is for undergraduate degree holding, preprofessional (preservice) teachers to learn about appropriate instruction, assessment and learning opportunities for Limited English Proficient (LEP) students in the content areas.

FLE 5431 ESOL II-Secondary Language & Literacy Acquisition in Children & Adolescents (3) ED EDX
PR: FLE 5430. This course is designed to provide students with a contextual understanding of instruction delivery which caters for the linguistic and literacy needs of minority / heritage communities.

FLE 5432 ESOL III-Language Principles, Acquisition & Assessment for English Language Learners (3) ED EDX
PR: FLE 5431. This course provides an overview of the components of language, linking them to methods and techniques of providing comprehensible instruction to LEP students.

FLE 5895 Dual Language Education (3) ED EDX
This course is for teachers who are interested in bilingual education. The aim is to deconstruct the philosophical, theoretical, political, social and educational underpinnings of Instruction (K-16) when it is delivered through two languages.

FLE 5940 ESOL Practicum (1-3) ED EDX
PR: FLE 5345 and FLE 5145. Must be taken in the semester prior to final internship. This course is restricted to Education majors and will not be repeatable for credit. A structured field experience with Limited English Proficient students.

FLE 5946 Practicum in Foreign Language/ESOL Teaching (3) ED EDX
PR: FLE 5313. CR: FLE 5331. This course prepares students for their internship by providing a structured pre-internship experience while meeting regularly in a university class. Opportunity to see teachers in action.

FOL 3100 General Foreign Language (1-4) AS WLE
A general purpose course that may be used for transfer of credit, credit by examination, and similar matters; may also be used for formal courses in less commonly taught languages or in professional translation.

FOL 4101 General Foreign Language II (1-3) AS WLE
A general purpose course that may be used for transfer of credit, credit by examination, and similar matters; may also be used for formal courses in less commonly taught languages or for workshops in professional interpreting.

FOL 4905 Directed Study (1-3) AS WLE
Departmental approval required.

FOL 5906 Directed Study (1-3) AS WLE
PR: FOL 4101 or equivalent.

FRE 1120 Beginning French I (4) AS WLE
CR: FRE 1120L. The first course in the study of elementary French. Emphasis on the development of basic skills in comprehension, speaking and reading.

FRE 1120L Beginning French I Laboratory (1) AS WLE
CR: FRE 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

FRE 1121 Beginning French II (4) AS WLE
PR: FRE 1120 or equivalent. CR: FRE 1121L. A continuation of FRE 1120.

FRE 1121L Beginning French II Laboratory (1) AS WLE
CR: FRE 1121. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

FRE 1170 Overseas Study-Elem. French (4) AS WLE
Departmental approval required. Elementary-level French taught in France. In lieu of FRE 1120 and FRE 1121.

FRE 2200 French III (3) AS WLE
PR: FRE 1121 or equivalent. A review of the basic structure of French.

FRE 2201 French IV (3) AS WLE
PR: FRE 2200 or equivalent. Readings in French on the intermediate level.

FRE 2240 Conversation II (3) AS WLE
PR: FRE 2241 or equivalent proficiency Conversation practice with concentration on current idiomatic usage.

FRE 2241 Conversation I (3) AS WLE
PR: FRE 1121. For development of basic conversational skills.

FRE 2270 Overseas Study-Intro. French (1-6) AS WLE
PR: Two semesters of university-level French or equivalent proficiency. Departmental approval required.

FRE 3324 Reading in French Literature and Culture (3) AS WLE
PR: FRE 2201 or equivalent. This course is designed to build reading skills in French while giving students a broad background in French culture.

FRE 3420 Composition I (3) AS WLE
PR: FRE 2200 and/or FRE 2201. A fundamental composition sequence for students who have completed FRE 2200 and/or 2201.

FRE 3440 French For Business (3) AS WLE
PR: FRE 2200 or equivalent. An introduction to the French language in ordinary business transactions.

FRE 3470-6 Overseas Study (3) AS WLE
Departmental approval required. An intensive study-travel project in France.

FRE 3500 French Civilization (3) AS WLE
Readings and discussion on the cultural history of France.

FRE 3502 The Francophone World MW (3) AS WLE
An undergraduate 3 credit course, which offers an overview of the main French speaking cultures throughout the world, outside of France: French Canada, the Caribbean, Belgium, Switzerland, the Maghreb, Sub-Saharan Africa, the Indian Ocean, the Middle East, Southeast Asia, Louisiana.

FRE 4392 African Images in Francophone Film HP AF SS MW (3) AS WLE
This is a film based course and technologically enhanced course which will look at cultural, socio-economic, political and gender issues in French speaking Africa. Course materials will be available in English and French.

FRE 4421 Composition II (3) AS WLE
Continuation of French composition. This course is designed to follow FRE 3420.

FRE 4471 Advanced Overseas Study (1-6) AS WLE
PR: FRE 3470 or CI. Departmental approval required. Intensive language study in France.

FRE 4700 French Linguistics (3) AS WLE
PR: LIN 3010 and FRE 2201 or equivalent. An introduction to the phonological, morphological and syntactic structure of French.

FRE 4905 Directed Study (1-3) AS WLE
Departmental approval required.

FRE 4930 Selected Topics (1-3) AS WLE
Study of an author, movement or theme.

FRE 5425 Advanced Written Expression (3) AS WLE
PR: FRE 4421, or equivalent. Course is designed to give advanced training in free composition in French.

FRE 5566 Contemporary France (3) AS WLE
PR: FRE 3500 or equivalent or graduate standing. An advanced survey of the modern society, economy, politics and culture of France.

FRT 3001 Great French Love Stories in Translation MW (3) AS WLE
This is a film based course and technologically enhanced course which will look at cultural, socio-economic, political and gender issues in French speaking Africa. Course materials will be available in English and French.

FRT 3002 The Francophone World MW (3) AS WLE
An undergraduate 3 credit course, which offers an overview of the main French speaking cultures throughout the world, outside of France: French Canada, the Caribbean, Belgium, Switzerland, the Maghreb, Sub-Saharan Africa, the Indian Ocean, the Middle East, Southeast Asia, Louisiana.

FRT 3004 French Literacy Masterpieces in English Translation LW (3) AS WLE
A survey of the major literary works of France, tracing not only literary but intellectual and cultural history from the Middle Ages to the present.

FRW 4100 The French Novel MW (3) AS WLE
PR: FRE 3234, FRE 3420 or CI. Study of the most representative novels from the 17th - 20th centuries in France, examining
literary movements, ideas, and techniques. Course taught in French.

**FRW 4101 Introduction to French Drama and Poetry MW (3) AS WLE**
PR: FRI 3234. A study of the history of drama and poetry. Will include medieval drama, Racine, Corneille, Moliere, Anouilh, Sartre, Ionesco and others. Also will include Villon, Ronsard, DuBellay, Lamartine, Hugo, Vigny, Musset, Baudelaire, Mallarme, Rimbaud, Valery, Peguy, Eluard, Apollinaire, Char, and others. Course content may vary from year to year. Course taught in French.

**FRW 5222 Classical Prose and Poetry (3) AS WLE**
PR: FRW 4101. Emphasis on Malherbe, Descartes, Pascal, La Fontaine, and Boileau.

**FRW 5226 20th Century Poetry and Theatre (3) AS WLE**

**FRW 5286 The 20th Century Novel (3) AS WLE**
PR: FRW 4100. Proust, Gide, Mauriac, Malraux, Camus, Robbe-Grillet.

**FRW 5314 Classical Drama (3) AS WLE**
PR: FRW 4101. Corneille, Moliere, and Racine.

**FRW 5415 Literature of the Middle Ages (3) AS WLE**
PR: FRW 4100 or FRW 4101. Major genres, including epics, Arthurian romances, drama and lyric poetry. Reading in modern French translation.

**FRW 5425 Literature of the Renaissance (3) AS WLE**
PR: FRW 4100 or FRW 4101. A study of Renaissance French humanism including Rabelais, Montaigne, and Pleiade poets.

**FRW 5445 18th Century Literature (3) AS WLE**
PR: FRW 4100. The classical tradition and the new currents of thought in the Age of Enlightenment.

**FRW 5528 Pre-Romanticism (3) AS WLE**

**FRW 5535 Romanticism and Early Realism (3) AS WLE**
PR: FRW 4101. A study of the romantic and early realistic movements with emphasis on Lamartine, Vigny, Musset, Hugo, and Balzac.

**FRW 5610 Naturalism and Realism (3) AS WLE**
PR: FRW 4100 or FRW 4101. A detailed study of realism and naturalism with emphasis on Flaubert, Zola, les Goncourt, Maupassant, and Daudet.

**FRW 5755 French Literature of Quebec (3) AS WLE**
PR: A survey of Francophone literature and cultures is recommended. Overview of the main representative literary works in French from Quebec in all genres (poetry, drama, novel, short story) as well as a survey of the main traits of Quebec history & culture. Open to non-majors. Not repeatable for credit. Taught in French.

**FRW 5759 African and Caribbean Literature (3) AS WLE**
PR: A survey of French literature. An overview of the main representative literary works in French from North and SubSahara Africa as well as the Caribbean. Open to non-majors and not repeatable for credit. Course taught in French.

**FRW 5829 An Introduction to Modern French Literary Criticism (3) AS WLE**
A graduate elective 3 credit course entirely taught in French, which offers a survey of the main trends and methods in 20th century literary criticism, the French having been at the forefront of the field.

**FRW 5934 Selected Topics (1-3) AS WLE**
PR: Upper-level or graduate standing. Study of an author, movement or theme.

**FSS 3231 Introduction to Food Production Management (3) US HRM**
Food preparation, standards and techniques in commercial food production and service. Factors affecting the quality of food, practical experience in food production and service, in accordance with food standards, sanitation & safety and cost control.

**GEO 2000 World Regional Geography SS HP AF (4) AS GPY**
Comparative analysis of the landforms of North America.

**GEO 2424 Tropical Meteorology NS (4) AS GPY**
PR: GEO 2200, one approved Calculus course, or CI. This course examines the tropical atmosphere, its interaction with land and ocean, as well as weather and climate phenomena that are unique to the tropics. Students will take an in-depth look at hurricane climatology, the El Nino and Southern Oscillation phenomenon, thunderstorms and lightning, satellite remote sensing, monsoons, sea-breeze convergence and Florida
climatology, surface energy exchange, land use change and its impact on tropical climates.

GEW 4265 Soil Genesis and Classification (4) AS GPY
PR: GEO 2200, or CI. A systematic study of soil genesis and classification with a focus on North American and Florida soils.

GEW 4280C Hydrogeology (4) AS GPY
PR: GEO 2200 or CI. Introduction to the general principles that govern hydrologic processes. Approaches to hydrologic measurements and the application of hydrologic analyses to water-resource management issues are examined.

GEW 4284 Water Resources Management NS (4) AS GPY
PR: Senior standing. Geographic perspectives on water resources management at the global, national and local scale, including political, socio-economic, technical and scientific aspects.

GEW 4300 Biogeography (4) AS GPY
PR: GEO 2200 and GEO 3164C, or CI. Analysis of the present and past distribution of species at an intermediate to large spatial scale.

GEW 4340 Natural Hazards (4) AS GPY
PR: Junior or Senior Standing. Examination of the physical, social, economic, political and cultural forces that create the phenomena of natural hazards. Case studies from around the world will include floods, droughts, tornadoes, hurricanes, freezes, heat waves, wild fires, earthquakes, tsunami, and volcanoes.

GEW 4372 Global Conservation 6A MW (4) AS GPY
The distribution, exploitation, and conservation of physical and human resources, ecology.

GEW 4421 Cultural Geography (4) AS GPY
PR: GEO 2400 or CI. The interrelationships of culture and nature, from ancient times to the present.

GEW 4471 Political Geography MW (4) AS GPY
PR: GEO 2400 or CI. The geographic factors underlying political decisions and influencing their outcome; the geographic consequences of these decisions; geopolitics.

GEW 4502 Economic Geography (4) AS GPY
PR: GEO 2400 or CI. The spatial organization of economic production, consumption, and exchange systems.

GEW 4604 Topics in Urban Geography MW (4) AS GPY
PR: GEO 3602, or CI. Intensive examination of issues such as economic restructuring and inner-city decline, ghetto formation, gentrification, transportation, and policy-making.

GEW 4700 Transportation Geography (4) AS GPY
PR: GEO 2400 and GEO 3164 or CI. General concepts related to the movement of goods and people, with particular emphasis on spatial principles and urban transportation problems and planning.

GEW 4900 Directed Reading (1-4) AS GPY
PR: 20 hours in geography and CI prior to registration.

GEW 4901 Individual Research (1-4) AS GPY
PR: 20 hours in geography and CI prior to registration.

GEW 4930 Selected Topics (4) AS GPY
Topics are at the discretion of the instructor. This course will offer upper-division advanced topical aspects of Geography. Course can be repeated for credit as long as the title is different, for up to 8 credits.

GEW 4933 Geography Colloquium (1) AS GPY
Senior Standing in geography Weekly topical lectures by faculty and outside speakers. Students will develop a plan for their professional or graduate careers.

GER 1120 Beginning German I (4) AS WLE
CR: GER 1120L. Development of basic skills in listening and reading comprehension, speaking and writing of German.

GER 1120L Beginning German I Laboratory (1) AS WLE
CR: GER 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

GER 1121 Beginning German II (4) AS WLE
PR: GER 1120 or equivalent. CR: GER 1121L. Continued development of basic skills in listening and reading comprehension, speaking and writing German.

GER 1121L Beginning German II Laboratory (1) AS WLE
CR: GER 1121. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

GER 2200 Composition I (3) AS WLE
PR: GER 1120 or equivalent. A review of the basic structure of spoken and written German. May be taken concurrently with GER 2201.
Design of gerontological studies, collection and analysis of data, and development of relevant reports.

**GEY 4608 Alzheimer’s Disease Management (3) AS GEY**
PR: GEY 2000 or GEY 3326. This course will provide instruction on effective approaches for providing care to persons with Alzheimer’s Disease and related disorders in residential and home care settings. The major dementing disorders and typical behaviors presented by patients are addressed along with strategies for successful behavior management. Building a dementia program and building dementia care teams are also covered.

**GEY 4612 Psychology of Aging SS (3) AS GEY**
A comprehensive overview of psychological aspects of aging. Topics will include age-related changes in sensation/perception, cognition, and personality, as well as application to late-life psychopathology.

**GEY 4628 Race, Ethnicity and Aging SS (3) AS GEY**
This course addresses how people of different ethnic and racial groups age, in the physical, psychological, and social contexts. Topics include cultural competence and sensitivity. Not restricted; repeatable.

**GEY 4635 Business Management in an Aging Society MW (3) AS GEY**
This course provides students with an interdisciplinary perspective that addresses both business management and the impact of our aging society on business.

**GEY 4641 Death and Dying SS (3) AS GEY**
A broad overview of the basic concepts and psychosocial issues relating to the meaning of loss and death, the process of dying, and griefing. Healthcare practices are considered along with community resources.

**GEY 4647 Ethical and Legal Issues of Aging SS MW (3) AS GEY**
A consideration of the major ethical and legal issues in aging and their implications for policies, priorities, and services.

**GEY 4900 Directed Readings (1-3) AS GEY**
PR: CI. A reading program with topics in gerontology conducted under the supervision of a faculty member.

**GEY 4935 Special Topics in Gerontology (3) AS GEY**
Courses on topics such as preretirement, mental health, human services organization, nursing home administration, the older woman, and elder abuse will be offered.

**GEY 4945 Field Placement (1-9) AS GEY**
PR: CI. Subject to availability of internship sites approved by the School of Aging Studies. Internship in an agency or community setting. A full-time assignment to an agency or organization, engaged in planning or administering programs for older people if in the BA program (6 hours), or to a nursing home if in the BS program (9 hours).

**GEY 5620 Sociological Aspects Of Aging (3) AS GEY**
Examines, within a sociological frame of reference, the interrelationships between the aged (or aging) and the structure and function of the social system and its major institutionalized subsystems.

**GEY 5630 Economics and Aging (3) AS GEY**
Examines basic economic systems as they impact the aged. Emphasis is on applied aspects of economic planning, pensions, insurance, social security and other support systems.

**GEY 5642 Perspectives on Death and Dying (3) AS GEY**
Study of the various psychological, medical, legal, and religious problems caused by dying and death, and how individuals and groups have responded in the past and present.

**GIS 2010C Map Interpretation (4) AS GPY**
Analysis and synthesis of various types of maps and map projections.

**GIS 3006 Computer Cartography (4) AS GPY**
An introduction to the concepts underlying modern, computer-based mapping and to the collection and storage of digital spatial data.

**GIS 4015C Remote Sensing of the Environment (4) AS GPY**
PR: GIS 3006 and GEO 3164C, or CI. Analysis of satellite images and aerial photographs for studies of the environment.

**GIS 4043C Geographic Information Systems (4) AS GPY**
PR: GIS 3006 and GEO 3164C, or CI. An introduction to the concepts underlying Geographical Information Systems, with an emphasis on analytical capabilities of such systems in both raster and vector domains.

**GIS 5845C GIS for Non-Geographers (3) AS GPY**
An introduction to the concepts underlying digital thematic mapping and geographical information systems (GIS) for non-geography majors and non-geography graduate students.
GLY 2930 Selected Topics in Geology (1-3) AS GLY
May substitute for GLY 2010 for geology majors. This course examines the geology of the earth and the environment, using an earth systems approach that looks at interactions between the lithosphere, hydrosphere, atmosphere, and biosphere. Students will learn general principles of geology, travel world-wide on the internet, and participate in discussions on topics ranging from the scientific method to the latest geologic discoveries. Open University course; taught via internet and TV. Open University course; taught via internet and TV.

GLY 2160 Geology of the National Parks (3) AS GLY
Required for Geology majors; open to non-majors. Study of minerals, rocks, and dynamic processes of the earth. Introduction to the origin of earth's materials, landforms, and structures.

GLY 2100L Dynamic Earth Laboratory (1) AS GLY
PR: GLY 2010 or concurrent registration. Required for Geology majors; open to non-majors. Laboratory study of earth materials, landforms, geologic structures, topographic and geologic maps. Required field trips.

GLY 2000 Essentials of Geology Laboratory (1) AS GLY
Fundamental concepts and skills of modern geology, including rock and mineral identification, analysis of geologic maps, field analysis, and applications of computers in Geology. Required field trip.

GLY 2050 Science, Earth and Life NS (3) AS GLY
May substitute for GLY 2010 for geology majors. This course is an introduction to the nature of geologic processes involving economics, ethics, policy, and environmental law. Open University course; taught via internet and TV. Required for Geology majors; open to non-majors.

GLY 2000L Earth History Laboratory (1) AS GLY
Laboratory study of the history of the earth and life. Required for Geology majors; open to non-majors.

GLY 2100 History of the Earth and Life NS (3) AS GLY
PR: A course in geology. Required for Geology majors; open to non-majors. Study of the physical and biological history of the earth including evolution of the major groups of organisms, plate tectonics, and interpretation of ancient environments.

GLY 2100L Earth History Laboratory (1) AS GLY
Laboratory study of the history of the earth and life. Required for Geology majors; open to non-majors.

GLY 2160 Geology of the National Parks (3) AS GLY
This course is an introduction to the nature of geologic processes including plate tectonics, earthquakes, volcanism, glaciation, and shoreline processes drawing on examples from our National Parks.

GLY 3850 Geology For Engineers (3) AS GLY
May substitute for GLY 2010 for geology majors. The nature, history and philosophy of science intended primarily for non-science majors. Consideration of science as a way of knowing through examples taken primarily from historical geology and biology (e.g., extinction of the dinosaurs, continental drift, evolution) but also from physics and astronomy. Consideration of social relevance of science.

GLY 3552C Sedimentary Record 1: Sedimentary Processes and Paleontology (4) AS GLY
PR: GLY 2000L, CHM 2045, MAC 2281. CR: GLY 3311C. A lecture and laboratory class that discusses sedimentary processes, formation and classification of sedimentary rock, and the sedimentary rock record. Examination of the rock record to solve problems in sedimentary geology.

GLY 3610C Introduction to Invertebrate Paleontology (4) AS GLY
PR: GLY 2100. BSC 2010 or equivalent strongly encouraged as background. Lectures and lab: concepts and principles and applications of paleontology, including biostratigraphy, taphonomy, paleoecology, and micro- and macroevolutionary patterns and processes. Labs survey the invertebrate phyla comprising the bulk of the fossil record.

GLY 3720C The Fluid Earth (4) AS GLY
PR: GLY 2000L; MAC 2311 and MAC 2312 or equivalent; CHM 2045 and CHM 2046; PHY 2048 and PHY 2048L. Physical, chemical and biological processes affecting fluids of the lithosphere, oceans and atmosphere. Water as a geologic medium and global entity. A systems approach. Not available as SU for geology majors; SU available for others.

GLY 3950 Geology For Geographers (3) AS GLY
PR: Junior standing in College of Engineering or CI. No credit toward the geology major, or for those with credit for GLY 2010. An examination of geologic materials and processes designed for classifying students; classification and properties of earth materials, surface processes, site investigation techniques, applications of geology to the solution of engineering problems.

GLY 4045 Moons, Planets, and Meteors: An Introduction to Planetary Science MW 3(3) AS GLY
PR: Junior standing. Solar System exploration, from Aristotle to NASA. Modern views on the origins of meteorites, the Moon, Venus, Mars, and other planetary bodies, and the methods of planetary study. Meteor impacts, their effects, future hazard. Space science as a tool in the study of the Earth. Field trips, lectures, Internet exercises.

GLY 4053 Theories and Arguments about the Earth MW 3(3) AS GLY
PR: 2000 level geology course. History of thinking about the Earth: context - geologic controversies; emphasis - geologic reasoning.

GLY 4104C Sedimentary Record 3: Paleontology and Earth Evolution (4) AS GLY
PR: GLY 2000L, GLY 3552C, BSC 2010. The study of "deep time", including how it is measured, how it is correlated over the Earth's surface, and how important physical, biologic, and chemical geologic processes have varied with time. Lec.-Lab.

GLY 4554C Sedimentary Record 2: The Earth's Surface (4) AS GLY
PR: At least one course in Geology with lab. Principles of weathering, erosion, production, and transport of sediment on the earth's surface, and the resulting geomorphology. Modern sedimentary environments and the processes of erosion that govern them. Course is open to anyone with at least one course in geology with lab. Course is not available on an S/U basis for geology majors; it is for other majors.

GLY 4734 Beaches and Coastal Environments MW 3(3) AS GLY
A comprehensive introduction to the nature of all coastal environments including beaches, dunes, tidal inlets, estuaries, reefs, and river deltas. Emphasis will be on the natural state of these environments and how human activities have and will impact them. Consideration of coastal management policies involving economics, ethics, policy, and environmental law.

GLY 4780 Geological Field Studies (1-3) AS GLY
PR: 1 geology course; lectures and field trip to study modern geologic systems and/or geologic origins of specific regions. Mapping and field description techniques introduced. Topic/destination of trip varies. Trips require camping and vigorous physical activity. Lect.-Lab.-field trips.

GLY 4822C Fluid Earth 2: Hydrogeology (4) AS GLY

GLY 4866 Computational Geology (3) AS GLY
PR: One semester of calculus and physics. Geologic problems and a problem-solving math approach, intersection of geometry and math. Calculations and error analysis. Not available as SU for geology majors; SU available for others.

GLY 4965 Independent Study (1-3) AS GLY
PR: CI, SU only. Specialized independent study determined by the student's needs and interests.
**GLY 4915 Undergraduate Research** (1-3) AS GLY
PR: Senior or advanced junior standing and written permission of department prior to registration. S/U only. Individual experimental investigations with faculty supervision.

**GLY 4920 Geology Colloquium** (1) AS GLY
PR: Senior standing in Geology. Students must enroll weekly. Weekly topical lectures by faculty, graduate students and invited speakers.

**GLY 4921 Geocommunications** (3) AS GLY
PR: Twelve (12) or more hours upper level geology courses. A course in communicating within the earth sciences. Emphasis will be on: writing for publication and technical reports, preparation and presentation of posters, and preparation and presentation of oral papers in earth sciences. Course is open to anyone majoring in geology, geography, anthropology or environmental science and policy. Course is not available on a S/U basis for geology majors.

**GLY 4930 Selected Topics in Geology** (1-4) AS GLY
Topics vary widely, with several different offerings each semester. May be repeated for credit.

**GLY 4946L Practical and Applied Geology: Teaching Experience** (1) AS GLY
PR: Junior standing, declared Geology major, and at least 12 credit hours of Geology courses, or Cr. Enrollment in other Practical/Applied sections. Completion of Geology supporting course sequence highly recommended. Hands-on course designed to teach the basic laboratory skills of a practicing geologist. Topics vary widely, with several different offerings each semester. May be repeated for credit.

**GLY 4946L Practical and Applied Geology: Laboratory Experience** (1) AS GLY
PR: Junior standing, declared Geology major, and at least 12 credit hours of Geology courses, or Cr: Enrollment in other Practical/Applied sections. Completion of Geology supporting course sequence highly recommended. Hands-on course designed to teach the basic skills of a practicing field geologist. Topics vary widely, with several different offerings each semester. May be repeated for credit.

**GLY 4948L Practical and Applied Geology: Field Experience** (1) AS GLY
PR: Junior standing, declared Geology major, and at least 12 credit hours of Geology courses, or Cr: Enrollment in other Practical/Applied sections. Completion of Geology supporting course sequence highly recommended. Hands-on course designed to teach the basic skills of a practicing field geologist. Topics vary widely, with several different offerings each semester. May be repeated for credit.

**GLY 4949L Practical and Applied Geology: Computational Experience** (1) AS GLY
PR: Junior standing, declared Geology major, and at least 12 credit hours of Geology courses, or Cr: Enrollment in other Practical/Applied sections. Completion of Geology supporting course sequence highly recommended. Hands-on course designed to teach the basic computational skills of a practicing geologist. Topics vary widely, with several different offerings each semester. May be repeated for credit.

**GLY 4970 Undergraduate Honors Thesis** (3) AS GLY
Open to seniors admitted to the Geology undergraduate honors program. Students will complete an independent research project under supervision of a faculty member, and present results in a senior thesis and a public presentation.

**GLY 5752 Geological Field Excursion** (2) AS GLY
PR: Senior standing in geology or Cr. Lectures and 2-3 week field excursion to study regional geology, structure and lithogenesis of geologically complex terrain. Mapping and outcrop description techniques are emphasized. Destination of trip varies. Trip requires camping and vigorous physical activity. Lec.-field trip.

**G 5865 Statistical Models in Geology** (3) AS GLY
PR: STA 2130 or equivalent. Application of statistical methods to geological problems. Emphasis on sampling plans, nature of geologic distributions, and application of analyses of variance to solving geological problems. Lec.

**GLY 5930 Selected Topics in Geology** (1-4) AS GLY
PR: Senior or advanced junior standing. Each topic is a course under the direction of a faculty member. All areas of geology included.

**GRA 2204 Typography** (3) VP ART
Restricted to majors. This foundational course explores the structure of letter forms and lettering. This course provides information about the importance of type in the context of graphic design and application for printed and electronic media.

**GRA 3104 Computer Graphics** (3) VP ART
Restricted to majors. Advanced problems in graphic design. Students will increase their skill with web-based design and photo-editing software.

**GRA 4910 Graphic Design I** (3) VP ART
Restricted to majors. This course explores the application of formal design principles to visual problem solving through typography, layout, and web design. Students will apply conventional and electronic tools and techniques to the graphic design process.

**GRA 3735 Multimedia Systems I** (3) VP ART
Restricted to majors. This course introduces multimedia systems and focuses on their use as tools in the production of digital multimedia. Content covers all key hardware, navigation, and operating components.

**GRA 4930C Graphic Design Senior Studio** (3) VP ART
Restricted to majors. Advanced problems in graphic design, advertising, and multimedia visual communication systems will be discussed and assigned as projects. Focus is upon efficient and effective use of technology in the design production process.

**GRA 4940 Graphic Design: Internship** (2) VP ART
Competitive portfolio may be required. Restricted to majors. On site supervised work experience in an educational, graphic studio, advertising agency, or corporate environment.

**GRA 4945 Graphic Design Practicum** (3) VP ART
Restricted to majors. Students fine-tune their portfolios, create self promotional print and digital projects and develop their resumes. Includes field trips to studios, agencies, corporate graphic departments and marketing firms.

**GRA 4955C Senior Project: Portfolio** (3) VP ART
Restricted to majors. This course covers the organization and presentation of a design/advertising/graphic portfolio and appropriate related materials. Emphasis is upon portfolio development, professional production, and self promotional skills.

**GRE 1120 Beginning Classical Greek I** (4) AS WLE
An introduction to classical Greek grammar with appropriate readings. May be repeated for credit.

**GRE 1121 Beginning Classical Greek II** (4) AS WLE
PR: GRE 1120 or equivalent. An introductory course in classical Greek grammar with appropriate readings.

**GRE 2140 New Testament Greek I** (4) AS REL

**GRE 2141 New Testament Greek II** (4) AS REL

**GRE 2220 Intermediate Classical Greek** (4) AS WLE
PR: GRE 1121 or equivalent. Readings in Greek at an intermediate level.

**GRK 1120 Beginning Modern Greek I** (4) AS WLE
CR: GRK 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

**GRK 1121 Modern Greek II** (4) AS WLE
PR: GRK 1120 or its equivalent; CR: GRK 1121L. A continuation of GRK 1120. An intensive study of basic skills; pronunciation, listening comprehension, speaking and some composition.

**GRK 1120L Beginning Modern Greek I Laboratory** (1) AS WLE
CR: GRK 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

**GRK 2220 Modern Greek III** (4) AS WLE
PR: GRK 1121 or the equivalent. For language students who intend to attain basic proficiency.

**GRK 1121L Modern Greek II Laboratory** (1) AS WLE
CR: GRK 1121. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

**GRK 2220L Modern Greek III Laboratory** (1) AS WLE
CR: GRK 2120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

**GRE 2140 New Testament Greek I** (4) AS WLE

**GRE 2220 Intermediate Classical Greek** (4) AS WLE
PR: GRE 1121 or equivalent. Readings in Greek at an intermediate level.

**GRK 1120 Beginning Modern Greek I** (4) AS WLE
CR: GRK 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

**GRK 1121 Modern Greek II** (4) AS WLE
PR: GRK 1120 or its equivalent; CR: GRK 1121L. A continuation of GRK 1120. An intensive study of basic skills; pronunciation, listening comprehension, speaking and some composition.

**GRK 1120L Beginning Modern Greek I Laboratory** (1) AS WLE
CR: GRK 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

**GRK 2220 Modern Greek III** (4) AS WLE
PR: GRK 1121 or the equivalent. For language students who intend to attain basic proficiency.
HFT 3630 Law and Security for the Hospitality Industry (3) US HRM
PR: HFT 3005 Functions of the law, legal environment and legal reasoning. An overview of the security issues in the hospitality industry. The law pertaining to contracts, workmen’s comp and the impact of law on economic enterprise in the hospitality industry.

HFT 3861 Beverage Management (3) US HRM
An introduction to the identification, use and service of wines, spirits, and other alcoholic beverages. An in-depth analysis of beverage operations to include selection/storage, inventory, purchasing, sales/promotion/merchandising, profits and bar management.

HFT 4221 Human Resources Management (3) US HRM
PR: HFT 3005, MAR 3023 Designed to educate new managers and supervisors in the complex issues involved in a comprehensive human resource program and its importance to hotel and restaurant business. Workmen’s Compensation, ADA, training, human resource program and its importance to hotel and restaurant business.

HFT 4253 Lodging Management (3) US HRM
PR: HFT 3005. MAN 3023 Principles, practices, and procedures of managerial functions as they relate to the operation of hotels. Training, conflict resolution, total quality management, crisis management, employee empowerment and service standards are focus of team building.

HFT 4323 Facilities Management in Hospitality Operations (3) US HRM
PR: HFT 3005 Engineering aspects of hospitality establishments, preventive maintenance procedures, energy conservation, waste management, pollution control, life safety systems, and facilities management. Departmental approval required. Course permits classes in original language.

HFT 4471 Management Accounting and Finance in Hospitality (3) US HRM
PR: FIN 3403, HFT 3005, HFT 3424 Financial functions in hospitality. Interpret hospitality financial statements, capital investment decision making, financial instruments and concepts. Analytical modeling for hospitality operations, including ratio analysis and capital budgeting tools.

HFT 4853 Restaurant Trends and Challenges Seminar (3) US HRM
PR: Senior standing. Advanced level course focusing on contemporary management issues and challenges facing the foodservice and hospitality industries. Topic covered will be applicable to current trends applicable to a variety of situations.

HFT 4930 Special Topics in Hospitality (1-3) US HRM
PR: HFT 3005 Topics to be selected by instructor and department chairperson for pertinent Hospitality Management issues.

HFT 4936 Hotel Management Seminar (3) US HRM
PR: Senior standing. Advanced level course focusing on current problems and trends in hotel management and the hospitality industry.

HFT 4945 Advanced Internship (3) US HRM
PR: HFT 3005 Coordinated hospitality training combines practical experience with didactic academic analysis. Principles, theory and standard practices applied to operational situations. S/U only.

HIS 2931 Special Topics (2-4) AS HTY
A variety of instructional approaches will be taken, and topics may vary.

HIS 3308 War and Society MW (3) AS HTY
An examination of the ways in which societies have organized themselves for war and how societies are changed by war. Also explores gendered expectations in war, and the changing conduct of war. Does not count for History major or minor credit.

HIS 3474 Science and Civilization (4) AS HTY
A thematic study of the interrelationship of science and society in modern history emphasizing the institutional forms, value structures, and social relations in science as they have developed from the scientific revolution to the present.

HIS 3930 Special Topics (2-4) AS HTY
This course is designed to emphasize a selected historical problem or issue that is meaningful and challenging to the student. A variety of instructional approaches will be taken to the material. Topics will be changed each semester.

HIS 3938 Major Issues in History MW (3) AS HTY
This course provides an introduction to the disciplines of history by examining a specific historical issue and its relation to at least one of the following dimensions: gender, race and ethnicity, international perspectives, environmental perspectives. Does not count for History major or minor credit.

HIS 4104 Theory of History AS HTY
PR: History major status and 2.25 HTY major GPA required. An analysis of the foundations of historical knowledge and historical methodology. Includes a survey of historical thinking and writing from ancient times to the present.
HSC 4211 Health, Behavior and Society (3) PH PHC
This course focuses on an ecological perspective of the determinants of health, including biological, individual behavior, social relationships, social stratification, institutions, neighborhoods and communities, environment, policies and globalization.

HSC 4531 Medical Terminology NS (3) PH CFH
This course provides a unique educational program to improve the student's medical vocabulary. The course includes medical and scientific content information, which students encounter in other health professional courses. Not restricted to any major.

HSC 4554 Survey of Human Diseases (3) PH CFH
PR: Fund. of Biology with Lab or CI. An overview of the nature, types, and mechanisms of diseases of the major body systems.

HSC 4579 Foundations of Maternal and Child Health (3) PH PHC
This course provides an overview of maternal and child health issues and trends. With this primary aim, the objectives are organized around the knowledge of health assessment and interventions for families and children.

HUM 2210 Studies in Culture: The Classical Through Medieval Periods HP (3) AS HUM
A comparative treatment of music, visual arts, theatre, literature, and philosophy in the East and West, proceeding chronologically from Ancient times through the Middle Ages, emphasizing Europe and India.

HUM 2271 Eastern and Western Culture from Antiquity to 1400 AF (3) AS HUM
A comparative treatment of music, visual arts, theatre, literature, and philosophy in the East and West, proceeding chronologically from the Renaissance through the Baroque Period, roughly the 17th Century, focusing on primary texts and images. Themes will include mysticism, sensuality, rationalism, science, absolutism, and liberty.

HUM 3237 The Seventeenth Century (3) AS HUM
PR: HUM 2210 or HUM 2230. An examination of the development of the arts and culture of the Baroque Period, roughly the 17th Century, focusing on primary texts and images. Themes will include humanism, the revival of antiquity, the concept of the individual, the Renaissance and Counter-Reformation, and the impact of New World explorations.

HUM 3240 The Enlightenment (3) AS HUM
PR: HUM 2210 or HUM 2230. This course examines the diverse cultures of Europe from the fourth to eleventh centuries. Major issues include the formation of religious cultures, modes of cultural contact, relationships between texts and images, and uses of earlier traditions.

HUM 3241 Central Medieval and Gothic Europe (3) AS HUM
PR: HUM 2210 or HUM 2230. A comparative treatment of music, visual arts, theatre, literature, and philosophy in the East and West, proceeding chronologically from the Renaissance through the present, emphasizing Europe, the United States, and India.

HUM 2230 Studies in Culture: The Renaissance Through the Twentieth Century HP (3) AS HUM
A historical survey of the visual arts, literature, music and thought of Europe from the Renaissance through the Twentieth Century. Issues to be examined may include the relationship between science and the arts and the consequences of the growing contacts among world civilizations and the impact of technological change.

HUM 2930 Selected Topics (1-4) AS HUM
An introductory course dealing with a recurrent theme in the arts or focusing on a particular artistic center (a nation or city at a particular time).

HIS 4920 Colloquium in History (2-4) AS HUM
Reading and discussion of selected topics in the various fields of history. The subject and scope of inquiry will be determined by the instructor for each section.

HIS 4933 Special Topics in Public Health (1-6) PH PHC
PR: CI. Content will be governed by student demand and instructor interest.

HUM 3290 Selected Topics (1-4) AS HUM
PR: CI.  Arrangement with instructor prior to registration. Readings and discussion of selected topics will be arranged with student interest. Suitable for 4000-level Humanities courses.
and the redefinition of public and political life during this period of extreme change. The course will deal with recurrent themes in the arts as, for example, love or death, or will focus on artistic centers such as Renaissance Florence or Paris in the 1920s. Topics will vary.

HUM 4452 Nineteenth Century American Culture (4) AS HUM
PR: Junior standing and HUM 2210 or HUM 2230, or CI. Study of selected Latin American works of art in their cultural context, with emphasis on the Pre-Columbian and Colonial periods. The course will focus on a particular historical, geographical, or thematic topic within this period.

HUM 4462 Pre-Columbian and Colonial Latin American Culture (4) AS HUM
PR: Junior standing and HUM 2210 or HUM 2230, or CI. Analysis of selected Latin American works of art in their cultural context, with emphasis on the period since the time of independence. The course will focus on a particular historical, geographical, or thematic topic within that period.

HUM 4405 Directed Study (1-4) AS HUM
PR: CI. Specialized individual study determined by the student's needs and interests.

HUM 4930 Selected Topics in Humanities (1-4) AS HUM
PR: Junior standing and HUM 2210 or HUM 2230, or CI. Analysis of selected Latin American works of art in their cultural context, with emphasis on the Pre-Columbian and Colonial periods. The course will focus on a particular historical, geographical, or thematic topic within this period.

HUM 4931 Seminar in Humanities 6A (4) AS HUM
PR: HUM 3331 or CI. Seminar focuses on the writing of a substantial research paper in the humanities. Topic varies.

HUM 4938 Major Issues in the Humanities MW (3) AS HUM
The study of an important topical issue in the Humanities. May repeat for credit, with permission, on different topics. Required of majors and non-majors.

HUM 4940 Internship in Humanities (1-2) AS HUM
An internships, off-campus experience providing firsthand, practical training in Humanities-related professional careers in the community. Restricted to Humanities majors. Repeatable up to 4 credit hours.
HUM 4941 Study on Location (1-4) AS HUM
PR: Repeatable once for up to eight credits. The art of a culture will be examined during travel in groups, led by an instructor, to important cities or sites. Monuments, museums, architecture, plays, and/or concerts will be studied. Reading assignments and written assignments are required.

HUN 2201 Nutrition (3) NU NUR
PR: Course work in chemistry and biology or permission of faculty. Open to majors and non-majors. The study of fundamental principles of normal nutrition, as they relate to human life and growth from conception through senescence, interpretation of current nutrition information, and application of nutrition knowledge in the establishment of good eating habits.

HUN 3832 Selected Topics in Nutrition (3) US DEA
The content of this course will be determined by student demand and instructor interest. Repeatable up to 3 times with different topics.

HUN 444 Clinical Nutrition (3) NU NUR
PR: HUN 2201 or equivalent. Focuses on the role nutrition has in causing and preventing disease processes.

IDH 2009 Discovery: People, Processes and Problems (3) HC HON
PR: Admission to Honors College. An appreciation of the research process in multiple disciplines culminating in the production of a collaboratively developed research proposal.

IDH 2010 Acquisition of Knowledge (3) HC HON
PR: Admission to Honors College. An appreciation of the problems of how human understanding proceeds through operations such as perception, classification, and inference, among others, as well as the ontological and philosophical questions behind these operations.

IDH 2930 Selected Topics (1-4) HC HON
PR: IDH 2010 or CI. This course is designed to emphasize a selected problem or issue that is meaningful and challenging to University Honors students and special populations. A variety of instructional approaches will be used. Topics will vary each semester. Repeatable for a total of 8 credits.

IDH 3100 Arts/Humanities Honors (1-3) HC HON
PR: IDH 2010. An introduction to western arts and letters from the perspectives of three periods (classicism, romanticism, and modernism), the relationship of ideas to art, the similarities among the arts of a given period, and important differences between periods.

IDH 3350 Natural Sciences Honors (3) HC HON
PR: IDH 2010. An exploration of current knowledge concerning fundamental principles in the Sciences, their potential for application and attendant ethical and philosophical questions. Honors College students only. Repeatable up to 6 hours.

IDH 3400 Social and Behavioral Sciences Honors (3) HC HON

IDH 3500 Applied Ethics (3) HC HON
PR: IDH 2010. This course explores ethical issues related to selected topics such as Ethics of Technology, Ethics in Business, Bio-Medical Ethics, Personal Ethics Development.

IDH 4000 Honors Program Seminar: Major Works/Majors Issues (4) HC HON
PR: IDH 2010. This course explores major works and major issues in a variety of disciplines. Each section will be devoted to content in a different academic area.

IDH 4200 Geographical Perspectives Honors (3) HC HON
PR: IDH 2010. An introduction to African, Latin American, Middle Eastern, or Asian perspectives focusing on social, political and economic, artistic, cultural and intellectual subject matter. The material will be presented within a geographical, chronological, and humanities background.

IDH 4910 Undergraduate Research (1-4) HC HON
PR: DPR. A supervised program of interdisciplinary research in areas of specific interest. Open to all USF students by application through the undergraduate research coordinator.

IDH 4930 Selected Topics (1-4) HC HON
PR: IDH 2010. This course is designed to emphasize a selected problem or issue that is meaningful and challenging to University Honors students and special populations. A variety of instructional approaches will be used. Topics will vary each section, and is not cross-listed.

IDH 4950 Honors Project (1-4) HC HON
A program of independent research or study in areas of specific interest under the supervision of a faculty mentor. Restricted to Honors College students.

IDH 4870 Honors Thesis (3) HC HON
PR: Senior Honors thesis. The development and public presentation of a senior thesis under the direction of a mentor. Course is taken for 2 semesters.

IDH 5596 Honors Graduate Project (3) HC HON
PR: Senior Status and permission of Honors College. Advanced Honors Project. Repeatable up to 12 hours.

IDH 5975 Honors Thesis (3) HC HON
PR: Senior Status and permission of Honors College. Advanced Honors Thesis. Repeatable up to 12 hours.

IDS 2664 Social Science Perspectives I SS (3) AS IAS
Provides an overview of the evolution and global expansion of Western Civilization. Examines global problems of economic growth and development, geopolitical relations among nations and states, food supply and hunger, and environmental change.

IDS 2665 Social Science Perspectives II SS (3) AS IAS
Approaches the study of human behavior and society using the lens of various institutions. The course addresses issues of social stratification, economics, education, religion and social status. The course is not restricted to any major, has no lab section, and is not cross-listed.

IDS 2668 Historical Perspectives I HP (3) AS IAS
Approaches the study of human history through a series of specific case-studies that focus on historical processes. The primary focus of the course is to understand the variety of ways the past has been brought into and understood in the present, rather than a comprehensive survey of a limited time or place.

IDS 2667 Historical Perspectives II HP (3) AS IAS
Approaches the study of human history through a series of specific exercises that focus on what historians do: produce histories. The primary focus of the course is to understand the variety of ways that the past can be emblotted in histories, rather than a comprehensive survey of a limited time or place. With this understanding, students will produce several of their own histories.

IDS 2931 Selected Topics (1-5) AS IAS
Selected topics in liberal arts and sciences. A basic introduction to the substance and theory of contemporary topics in humanities, social science or natural science.

IDS 2932 Selected Topics HP (3) AS IAS
Selected topics in the liberal arts and sciences.

IDS 2933 Selected Topics III SS (3) AS IAS
Selected topics in the Liberal Arts. A basic introduction to the substance and theory of contemporary topics in the arts and sciences.

IDS 2934 Selected Topics IV SS (3) AS IAS
Selected topics in the Liberal Arts. A basic introduction to the substance and theory of contemporary topics in the arts and sciences.

IDS 3115 Values and Choices 6A MW (3) ED EDF
An in-depth examination of values and their relationship to choices in contemporary society using historical perspective and examination of moral/ethical dilemmas. Available to majors or non-majors.

IDS 3186 Scientific and Ethical Dimensions of Human Disease WM (3) AS IAS
IDS 2934 Selected Topics IV SS (3) AS IAS
An interdisciplinary perspective of the biological basis of human disease combined with critical thinking and medical ethics. Basic concepts of human disease are integrated with bioethical dimensions of patient choice, physician responsibility and current health care issues.

IDS 3662 Arts Connections FA (3) VP FAI
This is an interdisciplinary course to the arts disciplines of music, dance, theatre, and art. Artists from the four disciplines will provide weekly presentations centered around issues and ideas that have formed the basis of their creative research. Influences of diversity, new technologies and community and public arts will be explored. This course will introduce students to the arts and their potential applications of the arts in the world as well as reflecting the underlying values and paradigms that form our culture(s).

IDS 3663 Critical Issues Affecting the Arts 6A WM (3) VP FAI
Available to double majors in art history, history of art, art education and religion. Class discussions will focus on the nature and significance of the arts in society and the role of the artist in the creation of new knowledge. Course is taken for 2 semesters.

IDS 3668 Images of Contemporary Urban Culture WM (3) AS IAS
This explores the multiple perspectives and methodologies used in the study of contemporary urban culture through the use of various literary genres. Examines the cultural realities of contemporary urban life, such as social stratification, discontinuity, anonymity and poverty, as well as its many potentials such as creative energy,
diversity, and relational networks. Must have enough credit hours required for exit course admission.

IDS 3949 Cooperative Education, Parallel (0-2) US COE
PR: 45+ semester hours completed, cumulative GPA 2.5+, have a declared major and be accepted in Cooperative Education Program. Full-time (10-25 hours/week) paid or for credit, career-related work experience. This course may be repeated up to 6 credit hours. Prerequisite: 45+ hours of credit, GPA 2.5+, a declared major and be accepted in Cooperative Education Program. S/U Only.

IDS 4910 Community Research (1-4) AS CEL
PR: CEL Program approval. Repeatable up to 8 credit hours. To provide students with a community related research experience.

IDS 4942 Community Internship (1-4) AS CEL
PR: CEL Program approval. Repeatable up to 8 credit hours. To provide students with a community internship experience.

IDS 4949 Cooperative Education, Alternating (0-3) US COE
PR: 45+ semester hours completed, cumulative GPA 2.5+, have a declared major and be accepted in Cooperative Education Program. Full-time (40 hrs/week) paid or for credit, career-related work experience. This course may be repeated up to 6 credit hours. Prerequisite: 45+ hours of credit, GPA 2.5+, a declared major and be accepted in Cooperative Education Program.

IDS 4955 International Community Research (1-2) AS CEL
PR: CEL Program approval. Repeatable up to 8 credit hours. To provide students with an international community research experience.

IDS 4956 International Community Internship (1-4) AS CEL
PR: CEL Program approval. To provide students with an international community internship experience. Repeatable up to 8 credits.

IDS 5177 The Atelier, Its Management and History (3) VP ART
This class will consider the history of printmaking and other forms of collaborative art production through the prism of the atelier and its management.

IDS 5178 Problems in Museum Studies (3) VP ART
PR: Art Advisor's Approval. This course is designed as both an academic and theoretical course to introduce students to the museum profession and develop critical thinking skills required to solve problems in the rapidly changing typography of museums. Students will develop managerial and administrative skills as they meet with and discuss the job descriptions of curators, educators, collection managers, marketing professionals, exhibit designers, registrars, and fundraisers.

INP 2101 Applied Psychology SS (3) AS PSY
The application of psychological principles and the functions of psychologist in education, government, industry, and clinical practice.

INP 4041 Industrial Psychology (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Applications of psychological principles to industry. Topics include: selection, training, motivation, job satisfaction, supervision, decision-making.

INR 1015 World Perspective SS AF (3) AS INT
An interdisciplinary study of the international system, major world regions and problems.

INR 2002 Introduction to International Relations (3) AS POL
Concepts and analytical tools applied to events such as politics among nations, control of foreign policies, types of actors, war and peace.

INR 3003 Introduction to International Studies (3) AS INT
An interdisciplinary study which stresses methods and analysis. A major portion will focus on the roles which different disciplines play in interpreting the international scene.

INR 3011 Globalization (3) AS INT
Influence of globalization on political-economic and social systems around the world. International organizations involved with globalization processes are studied along with nations benefiting from the consequences of globalization.

INR 3018 World Ideologies MW (3) AS INT
A course which details and examines the ideologies of today's independent countries; analyzing them in their political, social, cultural and historical context.

INR 3533 International Political Cultures MW (3) AS INT
This course will explore ways in which culture influences the nature of government, economic success or failure, and the constructive and destructive modes of interpersonal and social identification.

INR 3538 International Wealth and Power SS (3) AS INT
Introduction to the relationship between politics and economics, emphasizing the analysis of government policies in response to both domestic and international economic problems.

INR 3581 International Issues and Actors (3) AS INT
Departmental approval required. For majors and minors in INT only. An examination of the most important issues in international affairs. The course analyzes the behavior of major foreign policy actors in the international arena, including nation states, non-governmental and international organizations.

INR 3584 International Terrorism SS AF (3) AS INT
A study of contemporary international terrorism and its causes, ranging from national liberation movements to networks of philosophical anarchists.

INR 3102 American Foreign Policy (3) AS POL
Analysis of the development and scope of United States foreign policy, emphasizing goals and objectives, policy formulation and implementation, themes and issues. Repeatable up to 8 credit hours. PR: 45+ semester hours completed, cumulative GPA 2.5+, a declared major and be accepted in Cooperative Education Program. S/U Only.

INR 3141 Global Security Policy (3) AS INT
A study of security issues, regional and global (such as proliferation, arms control, arms transfer) as they relate to contemporary international politics.

INR 3202 International Human Rights MW (3) AS INT
This course explores the evolution of international rights from the Greeks to the present. It examines human rights issues in major regions of the world.

INR 3336 Intelligence and U.S. Foreign Policy (3) AS INT
An examination of the role of intelligence and the intelligence community in U.S. foreign policy, with emphasis on the period since World War II.

INR 3955 Overseas Study (1-6) AS INT
A program of individual or group research in a foreign country.

INR 4035 International Political Economy (3) AS POL
Analysis of the development and politics of the international economic system, focusing on questions of cooperation and conflict in trade, aid, and investment relationships.

INR 4083 Conflict In The World MW (3) AS INT
PR: Junior/Senior standing.  An interdisciplinary course examining theories of conflict, conflict resolution processes and strategies, theories and peacemaking strategies, and the concept of Early Warning Systems related to the outburst of conflict.

INR 4254 Africa in World Affairs MW (3) AS INT
An examination of Africa’s place and role in world affairs, including an analysis of the impact of external forces, international relations in post-colonial Africa, the relations of African states with the major world powers, the U.N. and its agencies.

INR 4403 International Law SS (3) AS POL
Examines essential components of the international legal system; recognition; succession; sea, and airspace law, treaties, diplomats, International Court of Justice; laws of war, etc. Introduces the student to legal reasoning as employed in the international context.

INR 4502 International Organizations SS AF (3) AS POL
A study of the operations and structure of international organizations and effects on world politics; background and achievement of the UN; regional organizations and multi-national corporations.

INR 4900 Directed Readings (1-3) AS INT
PR: CI.  A supervised program of intensive reading of interdisciplinary materials in areas of specific interest.

INR 4910 Directed Research (1-3) AS INT
A supervised program of interdisciplinary research in areas of specific interest.

INR 4931 Selected Topics (1-4) AS INT
Interdisciplinary studies with course content dependent on student demand and instructor's interest.

INR 4936 Senior Seminar MW (3) AS INT
PR: International Studies major and senior standing. A variable topics seminar integrating concepts and analyses relating to the academic background of INT majors. Should be taken in the student’s final semester.

INR 4943 Internship in International Studies (3-6) AS INT
PR: Senior status. Sr./GS. For majors only. The purpose of the course is to promote the student’s understanding of global international issues within a local and practical context.

INR 5012 Globalization (3) AS INT
Examination of globalization’s impact on international relations, including literature from political science, anthropology, geography, sociology, and economics that impacts the study of the nation-state system and power. Open to majors and non-majors.

INR 5086 Issues in International Relations (3) AS POL
Sr./GS. Explores specific topics and provides the student with an opportunity for in-depth study of historical and contemporary problems in international politics.
ISCS 1004 Integrated Natural Sciences I: Science that Matters (3) AS IDS
Discussion of integrative concepts in biology, chemistry, geology, and physics based on major knowledge strands of the Florida and Natural Science Education Standards. This course deals with current topics relevant to students, is inquiry based, and emphasizes development of higher order (critical thinking) skills through active learning strategies.

ISCS 1005 Integrated Natural Sciences II: Science that Matters (3) AS IDS
Discussion of integrative concepts in biology, chemistry, geology, and physics based on major knowledge strands of the Florida and Natural Science Education Standards. This course deals with current topics relevant to students, is inquiry based, and emphasizes development of higher order (critical thinking) skills through active learning strategies.

ISM 3011 Information Systems in Organizations (3) BA QMB
PR: CGS 2100 or equivalent. An introduction to the language, concepts, structures and processes involved in the management of information systems including fundamentals of computer-based technology and the use of business-based software for support of managerial decisions.

ISM 3113 Systems Analysis and Design (3) BA QMB
PR: ISM 3011. Study of the techniques and procedures used in assessing information requirements, analyzing information flows and processing activities, and designing computer-based business systems.

ISM 3232 Business Application Development (3) BA QMB
CP: ISM 3011 with a grade of "C" or better (not C-). Presentation of business application development techniques using a modern programming language. Topics include data structures, indexing, file processing, and user interfaces. Good program design techniques are emphasized. Business applications are developed.

ISM 3431 Management Science Production/Operations Management Applications (3) BA QMB
PR: MAC 2233 or MAC 2241. Fundamentals of production operations management (POM) and fundamentals of management science (MS). The application of MS models in the solution of POM problems.

ISM 4133 Advanced Systems Analysis and Design (3) BA QMB
PR: ISM 4212 with a grade of "C" or better (not C-). This course builds previous class and/or work experience in systems development, with particular emphasis on the use of an integrated CASE tool on a team project. Students will gain an understanding of systems development problems and approaches using a variety of methods, such as, lectures, discussion, team presentations, guest speakers, demonstrations and computer use.

ISM 4141 Web Application Development/Java (3) BA QMB
PR: ISM 3232 with a grade of "C" or better (not C-). Java will be used to introduce object oriented concepts. Programming assignments cover a variety of application features including graphical user interface, database connectivity, multi-threading, & client-server computing using Java and Java Server Pages.

ISM 4212 Database Design and Administration (3) BA QMB
PR: ISM 3113 with a grade of "C" or better (not C-). Principles of database design/management for mainframe, micro, and client/server environments; including data modeling, physical vs. logical representation and back-up and recovery management.

ISM 4213 Advanced Database Administration (3) BA QMB
PR: ISM 3113, ISM 4212, plus grades of "C" or better (not C-). Essential concepts of database administration in a business environment are covered in order to prepare students to understand and deal with database administration issues and concepts. Students gain hands-on experience by administering a database environment and completing assignments that involve resource management, data administration, security, backup, recovery and database tuning issues.

ISM 4223 Business Data Communications (3) BA QMB
PR: ISM 3113 with a grade of "C" or better (not C-). Fundamentals of data communication, including network architectures, communication protocols, transmission standards and media access control methods.

ISM 4233 Information System Interface Design (3) BA QMB
PR: ISM 3232 with a grade of "C" or better (not C-). The fundamental concepts of human perception and cognition are studied in order to develop effective human-computer interfaces. Various types of interfaces are examined. Students will develop human-computer interfaces via state-of-the-art development languages and systems.

ISM 4234 Object-Oriented Design and Development (3) BA QMB
PR: ISM 3232 with a grade of "C" or better (not C-). This course presents an object-oriented approach to software development of business information systems. Students will learn to create object models of the business world and to develop information systems from these business object models. The designs will be implemented by the use of the C++ or other OO programming languages.

ISM 4240 Distributed Operating Systems (3) BA QMB
PR: ISM 3232 with a grade of "C" or better (not C-). Introduction to distributed operating systems fundamentals such as distributed systems architecture, file structures, client-server, open systems, resource allocation, and basic tools for manipulating these operating environments.

ISM 4290 Senior Seminar in Information Systems (3) BA QMB
PR: ISM 4212 with a grade of "C" or better (not C-). A seminar covering advanced topics in systems management, analysis and design. Applications of these procedures to actual or hypothetical cases.

ISM 4300 Managing Information Resources (3) BA QMB
PR: ISM 4212 and ISM 4220, with grades of "C" or better (not C-). Current issues in information systems management focusing on organizational policies, procedures and standards for managing distributed computing resources.

ISM 4382 Global Information Systems (3) BA QMB
PR: ISM 3011 with a grade of "C" or better (not C-). Role of information technology in global business organizations and challenges in building information systems to enable global operations.

ISM 4400 Decision Support Systems (3) BA QMB
PR: ISM 3230, ISM 3011, with a grade of "C" or better (not C-). Study of quantitative analysis tools and their use in organizational decision making. Emphasis on a structured approach to making important business decisions, demonstrating several forms of mathematical modeling and other management science techniques.

ISM 4480 Electronic Commerce Systems (3) BA QMB
PR: ISM 3011 with a grade of "C" or better (not C-), MIS major or CC. This course is designed to familiarize students with the opportunities and challenges associated with electronic commerce, to explore the underlying technologies used in implementing electronic commerce systems, and to develop the practical skills needed to design and develop effective Web pages.

ISM 4905 Independent Study (1-6) BA QMB
S/U only. Independent study as directed by designated faculty.

ISM 4930 Selected Topics in MIS (1-3) BA QMB
Selected topics in MIS.

ISM 4950 Independent Research (1-6) BA QMB
PR: CI. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor.

ISM 4990 Knowledge and Society SS (1-3) AS ISS
Course introduces students to issues concerning the relationship between knowledge and society. Among the issues addressed are competing accounts of knowledge and the relationship between knowledge and other forms of human experience and different aspects of social life such as religion, morality, aesthetics, politics, and gender.

ISS 1102 Self and Society SS (3) AS ISS
Course introduces students to issues concerning the relationship between the self (or individual) and society. Among the topics that may be addressed are the nature of human relations, how human nature is shaped by social and cultural factors; the moral implications of knowledge, and the nature of the self and society; and how our understanding of the self and society is shaped by culture and context.

ISS 1103 Nature and Culture SS (3) AS ISS
This course examines competing ideas and theories concerning the relationship between nature and culture. Among the issues and questions examined are the relationship between nature and culture; how does society affect our natural environment? This course introduces students to issues concerning the relationship between knowledge and society. Among the topics that may be addressed are the nature of human relations, how human nature is shaped by social and cultural factors; the moral implications of knowledge, and the nature of the self and society; and how our understanding of the self and society is shaped by culture and context.

ISS 3010 Introduction to the Social Sciences (3) AS ISS
Integrates the range of social science fields within a global interdisciplinary perspective. Views social institutions and issues from perspectives of changing paradigms.

ISS 3930 Selected Topics in the Social Sciences (1-4) AS ISS
Interdisciplinary studies of varying topics, with course content dependent on student demand and instructor’s interest.
JOU 3101 Advanced Reporting (3) AS COM
An interdisciplinary examination of issues of Native American Women, past and present. Topics include history, education, politics, family, etc.

JOU 4100 Directed Readings (1-3) AS ISS
PR: CI. A supervised program of intensive reading of interdisciplinary materials in areas of specific interest.

JOU 4910 Directed Research (1-3) AS ISS
PR: CI. A supervised program of interdisciplinary research in areas of special interest.

JOU 4935 Seminar in the Social Sciences MW (3) AS ISS
PR: Senior standing and ISS 3010 or CI. The seminar which caps the interdisciplinary major. Weds personal curiosity with the application of theoretical models to research on salient social issues.

ISS 5934 Selected Topics (1-3) AS AFA
PR: CI plus senior standing or graduate status. Interdisciplinary studies with course content dependent on student demand and instructor's interest.

ITA 1120 Beginning Italian I (4) AS WLE
CR: ITA 1120L. The first course in the study of elementary Italian. Emphasis is on the development of basic skills in comprehension, speaking, and reading.

ITA 1120L Beginning Italian Laboratory (1) AS WLE
CR: ITA 1120. A laboratory designed to offer additional practice in listening, speaking, and reading. Includes various instructional technologies and media.

ITA 1121 Beginning Italian II (4) AS WLE
CR: ITA 1121L. The second course in the study of elementary Italian. Emphasis is on the development of basic skills in comprehension, speaking, and reading.

ITA 1121L Beginning Italian Laboratory II (1) AS WLE
CR: ITA 1121. S/U only. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. A laboratory designed to offer additional practice using various instructional technologies and media.

ITA 2200 Italian III (3) AS WLE
PR: ITA 1121 or equivalent. Readings in Italian on the elementary level. A review of the basic structure of spoken and written Italian.

ITA 2201 Italian IV (3) AS WLE
PR: ITA 2200. This course marks the fourth level in the acquisition of Italian language. It continues to encourage students to speak, listen, read and write in the target language through frequent communicative activities.

ITA 2240 Italian Conversation I (3) AS WLE
PR: ITA 2200 or CI. This advanced-level Italian course belongs to the third level of modules leading to proficiency. It aims at consolidating student's knowledge of Italian grammar and vocabulary with the ultimate goal of fostering accuracy in Italian conversation.

ITA 2241 Italian Conversation II (3) AS WLE
PR: ITA 2241 or CI. This advanced-level Italian course belongs to the third level of modules leading to proficiency. It aims at consolidating student's knowledge of Italian grammar and vocabulary with the ultimate goal of fostering accuracy in Italian conversation.

ITA 3420 Composition (3) AS WLE
A fundamental composition course for students who have completed ITA 2200.

ITA 3470 Overseas Study (1-6) AS WLE
Prior approval and early registration required. An intensive study-travel project in Italy.

ITT 3504 Italian Cultural Studies HP MW (3) AS WLE
An overview of Italian culture from the Unification to the present. It aims at tracing the ways in which the concept of Italian culture has been defined according to different social, historical, and political perspectives. Taught in English

ITW 4100 Survey of Italian Literature I (4) AS WLE
A survey of Italian literature from the earliest monuments through the Classicism of the 18th century and continuing to present.

ITW 4101 Survey of Italian Literature II (4) AS WLE
A survey of Italian literature beginning with the Classicism of the 18th century and continuing to present.

JOU 2100 Beginning Reporting (3) AS COM
PR: MMC 1000. Basic instruction in news judgment, sources of news, newsgathering, and newswriting techniques for various media. Typing ability is required.

JOU 3101 Advanced Reporting (3) AS COM
PR: JOU 2100 or RTV 3301 (RTV majors only), JOU 4201 (may be taken concurrently), PHI 1103 and POS 2041. Reporting and writing the more complex and specialized story. Techniques of investigatory and analytical reporting, including ethical and legal considerations.

JOU 3306 Critical Writing: Editorials, Reviews, Columns (3) AS COM
PR: JOU 3101 and JOU 4201. Interpretive and opinion writing for the mass media. Analysis and discussion of current events as a basis for critical thinking and editorial writing. Evaluation of editorial pages of leading newspapers. Study of journalistic techniques involved in reviews and personal columns.

JOU 3308 Magazine Article and Feature Writing (3) AS COM
PR: CRW 2100 and JOU 2100. Planning, researching, writing, and marketing articles for general and special interest magazines and newspaper supplements. Experiences in developing article ideas and analysis of magazine articles.

JOU 3940 Reporting Practicum (1) AS COM
PR: JOU 3101 and CI. For journalism sequence majors. S/U only. Practical experience outside the classroom where the student works for academic credit under the supervision of a professional practitioner. Periodic written and oral reports to the faculty member coordinating the study.

JOU 4181 Public Affairs Reporting (3) AS COM
PR: JOU 3101 or RTV 3301 (RTV majors only), POS 2041 and POS 2112 or POS 3142. Covering city council meetings, courthouse, city hall, courts, society, and other special assignments. Emphasis on coverage of major government units of all levels of government, including examination and interpretation of public documents and records.

JOU 4201 News Editing I (3) AS COM
PR: ECO 1000, JOU 2100 and SYG 2010. Evaluating news and its display. Editing and rewriting copy for the mass media including new media, with emphasis on the daily newspaper. News judgment, headlines and makeup. Ethical problems. Introduces design to theories of design and graphics.

JOU 4206 Newspaper and News Publication Design (3) AS COM
PR: JOU 4201 or CI. Theoretical and practical applications of newspaper and news publication design, including typography, graphics, graphics software and electronic picture editing. Exercises in design for newspapers and news publications in both print and electronic formats.

JOU 4212 Magazine Design and Production (3) AS COM
PR: JOU 4201. Theoretical and practical application of design principles for magazines. Design software. Study of visual design, page architecture, typography, color and illustrations. Integration of design elements in the design of magazine covers. Design elements specific to magazine and production preparation.

JOU 4941 Editing Practicum (1) AS COM
PR: Senior standing, JOU 4201 and CI. For journalism sequence majors. S/U only. Practical experience outside the classroom where the student works for academic credit under the supervision of a professional practitioner. Periodic written and oral reports to the faculty member coordinating the study.

JOU 4944 Magazine Practicum (1) AS COM
PR: Senior standing and CI. For journalism sequence majors. S/U only. Practical experience outside the classroom where the student works for academic credit under the supervision of a professional practitioner. Periodic written and oral reports to the faculty member coordinating the study.

JOU 5105 Newswriting and Editing (3) AS COM
PR: GS in Mass Communications or CI. Introduction to the basics of gathering, writing, and editing the news, with an emphasis on practical assignments done under professional conditions and standards. Discussions, readings emphasize the larger context and implications of news.

JOU 5305 Explorations in Newswriting (3) AS COM
PR: CC. Students work to develop writing styles, reporting on and creating stories about significant issues, events, and ideas. The course explores the notion that narrative-style journalism can be accessible, thorough, formative, effectively bringing readers into stories and giving them a bigger stake in the news. The focus is on-going beyond traditional practices of reporting and writing news stories.

JOU 5354 Multimedia Journalism (3) AS COM
PR: An appropriate undergraduate degree in mass communications or significant professional experience in journalistic writing styles. The course is designed to bring components of print, radio, and broadcast reporting to develop skills for and understanding of the multimedia environment. It is restricted to majors and not repeatable for credit.
JPN 1120 Modern Japanese I (4) AS WLE
CR: JPN 1120L. An intensive study of basic skills: pronunciation, listening comprehension, speaking, and some composition.

JPN 1120L Modern Japanese I Laboratory (1) AS WLE
CR: JPN 1120. Concurrent enrollment with a lecture session is required, and if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

JPN 1121 Modern Japanese II (4) AS WLE
PR: JPN 1120 or equivalent. CR: JPN 1121L. A continuation of JPN 1120. More sophisticated oral/aural skills are attained. Basic reading skills are acquired.

JPN 1121L Modern Japanese II Laboratory (1) AS WLE
CR: JPN 1121. S/U only. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. A laboratory designed to offer additional practice using various instructional technologies and media.

JPN 2220 Modern Japanese III (3) AS WLE
PR: JPN 1121 or equivalent. Continuing study to attain basic proficiency in Japanese.

JPN 2221 Modern Japanese IV (3) AS WLE
PR: JPN 2220 or equivalent. Continuation of JPN 2200.

JPN 4905 Directed Study (1-5) AS WLE
Departmental approval required. S/U only. Permits study options in Japanese not available in regularly scheduled curriculum at departmental discretion.

JPN 4930 Selected Topics (1-5) AS WLE
Departmental approval required. Course permits study options in Japanese not available in the regularly scheduled curriculum at departmental discretion.

LAE 4314 Teaching Writing in the Elementary School, Grades K-6 (3) ED EDE
PR: Elementary Education majors or CL. The purpose of this course is for students to understand children's writing development and to design and implement instructional strategies for teaching composition in an integrated Language Arts curriculum.

LAE 4323 Methods of Teaching English: Middle School (3) ED EDT
Must be taken one or two semesters prior to internship. Recommended to be taken with LAE 4464. Whole language methods of integrating reading, writing, speaking, viewing, and critical thinking activities into a literature-based program for middle school students.

LAE 4335 Methods of Teaching English: High School (3) ED EDT
PR: LAE 4464. Must be taken one semester prior to internship concurrently with LAE 4530. Whole language methods of integrating reading, writing, speaking, viewing, and critical thinking activities into a literature-based program for high school students.

LAE 4414 Teaching Literature in the Elementary School, Grades K-6 (3) ED EDT
JR/SR. Standing. The purpose of this course is for students to survey and analyze the genres of children's literature and to develop instructional strategies to use literature in literacy learning across the curriculum.

LAE 4416 Teaching Language and Writing in the Elementary Grades 6A LW (3) ED EDE
PR: Elementary Education major. This course is designed to provide students with the skills necessary to implement a coordinated literature program and an integrated writing curriculum. Not repeatable for credit.

LAE 4464 Adolescent Literature for Middle and Secondary Students 6A LW (3) ED EDT
PR: English Education majors or CL. Recommended to be taken with LAE 4323 two semesters prior to internship. This study of the types of literature read by adolescents with an emphasis upon the criteria for the choice of good books and knowledge of available books and teaching materials.

LAE 4469 Teaching World Literature to Middle and Secondary Students MW (3) ED EDT
World literature encompasses more than Western European literature. This course is designed to emphasize, but is not limited to, the study of Eastern literature. This course fulfills the world literature course requirement for teacher certification in English.

LAE 4530 Methods of Teaching English: Practicum (3) ED EDT
PR: Senior standing concurrently with internship. Synthesis of teacher candidate's courses in complete college program.

LAE 4936 Senior Seminar in English Education (2) ED EDT
PR: Senior standing concurrently with internship. Synthesis of teacher candidate's courses in complete college program.

LAE 4940 Internship: English Education (1-12) ED EDT
STUDY. One full semester of internship in a public or private school. Intern takes Senior Seminar in English Education concurrently. In special programs where the intern experience is distributed over two or more semesters, student will be registered for credit which accumulates from 9 to 12 semester hours.

LAE 5462 Young Adult and World Literature for New Teachers (3) ED EDI
PR: Teaching position w/English degree or 30 hrs of Undergraduate English A study of the types of literature read by adolescents, including literature representative of other cultures, with emphasis upon the criteria for the choice of good books and knowledge of available books and teaching materials.

LAE 5932 Selected Topics in the Teaching of English (3) ED EDT
PR: Certification in English and/or Mass Communications and approval of graduate advisor. Investigation of topics which are of special interest to the student and are related to the teaching of English in the secondary school. Topics will be selected by the student in accordance with his particular goals and will be approved by the student's graduate advisor.

LAH 2020 Latin American Civilization HP AF (3) AS HTY
An introduction to selected issues, events, and people in Latin American history from 1492 to the present. Focus on Argentina, Brazil, Chile, Cuba, and Mexico. Intended for students in any discipline; no prerequisites. An entry-level course for Latin American studies.

LAH 2733 Latin American History in Film HP AF (3) AS HTY
Through the use of films and readings, the course introduces the broad sweep of Latin American history from the pre-Columbian period to today. Emphasis is placed on the social-cultural context to understand the peoples and events that have shaped Latin America.

LAH 3130 Colonial Latin America (4) AS HTY
A study of the Spanish and Portuguese Colonial empires in the New World from 1492-1830.

LAH 3200 Modern Latin America (4) AS HTY
A study of the emergence of the Latin American States. The course will examine developments in Latin America during the nineteenth and twentieth centuries. Special attention is given to the Third World character of the region.

LAE 3430 History of Mexico (4) AS HTY
Mexican history from pre-Columbian cultures to the twentieth century. Emphasis falls on the colonial political economy, social development, the wars of independence, development of the Mexican state and the Mexican revolution.

LAH 3470 History of the Caribbean (4) AS HTY
A thematic study of the circum-Caribbean from pre-Columbian cultures to the twentieth century, emphasizing the development of the Caribbean political economy with emphasis on monoculture, plantation society, and colonial/neocolonial relations.

LAH 3480 History of Cuba (4) AS HTY
Cuban history from pre-Columbian cultures to the Cuban Revolution. Emphasis on colonization, the sugar economy, the struggles for independence, the political economy of the Republic, and the 20th century revolutionary process.

LAS 3002 Latin America (3) AS INT
Area study courses are multi-disciplinary in nature and deal with one or more countries of a region. Each course combines some measure of political, economic, historical, religious, geographic, anthropological, and sociological analysis in dealing with salient features and current problems.

LAS 3004 The Americas - Latin and Caribbean (3) AS INT
This is a telecourse that is designed to introduce the complexities of Latin America and the Caribbean to students in the U.S. (Open University - televised course)

LAS 3016 Latin America Through Film AF (3) AS INT
This course will use film, video, selected readings, and lectures to teach the interested student about Latin America.

LAS 4530 Selected Topics in Latin American Studies (3-9) AS INT
Latin America region will be analyzed through different specific topics to provide students analytical tools to understand hemispheric relations and the relevance of this complex region to the U.S. majors, repeatable up to 9 credits.

LAS 4940 Internship in Latin America and the Caribbean (1-9) AS INT
PR: CI. Designed to complement other instruction focused on Latin America and the Caribbean. Open to all majors and is repeatable up to 9 hours.
LIN 2002 Language and a Movie AF (2-3) AS WLE
PR: Freshman and Sophomore Standing only. Offers initial exposure to foreign languages and cultures. Through lecture, demonstration, discussion, and the viewing of full-length feature films, students are introduced to a variety of prominent modern and ancient languages and cultures.

LIN 3010 Introduction to Linguistics (3) AS WLE
Introduction to the basic principles of linguistic science; phonological and grammatical analysis and description; language change and genetic relationships.

LIN 3670 English Grammar and Usage (3) AS ENG
A course in the basics of traditional English grammar designed as a complement to our composition and creative writing courses, as a review for those students who will take preprofessional exams, and as a basic course for students interested in improving their knowledge of English. Will not be counted toward the English major.

LIN 3801 Language and Meaning 6A (3) AS WLE
A survey introduction for non-specialists to the basic principles of semantics and the way language conveys ideas. This course is also available on WUSF/TV Channel 16 by the O.U. Program.

LIN 4040 Descriptive Linguistics (3) AS WLE
PR: LIN 3010 or CI. Introduction to the basic techniques of formalizing linguistic descriptions through elementary phonological, morphological, and syntactic data solution-problems drawn from a variety of languages. Both taxonomic and generative analysis and descriptions will be developed and compared.

LIN 4575 Language Types of the World (1) AS WLE
A survey introduction of the phonology, syntax, semantics, pragmatics, and nonverbal communication and the role of language in general cognitive development.

LIN 4671 Traditional English Grammar (3) AS ENG
A course primarily using the sentence diagram to present a detailed analysis of the parts of speech, verb tenses, sentence functions, and other basic grammatical classifications of traditional English grammar.

LIN 4680 Structure of American English (3) AS ENG
An introductory survey of traditional, structural, and generative transformational grammars and their techniques for the analysis and description of linguistic structure in general, and contemporary American English, in particular.

LIN 4710 Language and Communication: Acquisition and Development (3) AS WLE
PR: LIN 3010. A survey of current research and theory in the processes of normal acquisition and development of language and communication in children, the acquisition and development of phonology, syntax, semantics, pragmatics, and nonverbal communication and the role of language in general cognitive development.

LIN 4903 Directed Reading (1-3) AS WLE
Readings in special topics.

LIN 4930 Selected Topics (1-3) AS WLE
PR: CI. Course content depends upon student's needs and instructor's interest and may range over the entire field of linguistics.

LIN 5700 Applied Linguistics (3) AS WLE
Analysis of the phonological, morphological, and syntactic features of English as a basis for linguistic application to problems in English language acquisition by native speakers.

LIS 2937 Selected Topics in Library/Information Science (1-3) AS LIS
Covers a variety of topics in the field of library/information science such as emerging technologies, administration and service, and current professional issues.

LIS 3351 World Wide Web Page Design and Management (3) AS LIS

LIS 4930 Selected Topics in Information Studies (3) AS LIS
Covers a variety of topics in the field of library/information science such as emerging technologies, administration and service, and current professional issues.

LIS 5020 Foundations of Library and Information Science (3) AS LIS
Introduction to the study of library and information science, history; organization; specialized literature; outstanding leaders; current trends, issues, and problems; the place of the information agency in society with its contributions to that society.

LIS 5268 Microcomputer Applications Library and Information Centers (3) AS LIS
Microcomputer hardware and software for libraries and their application in library/information settings. Projects using major applications for budgets, databases, and telecommunications are undertaken.

LIS 5315 Instructional Graphics (3) AS LIS
Theoretical aspects, planning and production of instructional graphic material. The theory of graphic communications. Inclusion of various software and printer applications.

LIT 3102 Literature of the Western World Since the Renaissance (3) AS ENG
A study of such modern and contemporary dramatists as Ibsen, Strindberg, Chekhov, Pirandello, Shaw, O’Neill, Pinter, Stoppard, Brecht, Beckett, and Ionesco.

LIT 3093 Contemporary Literature (3) AS ENG
A study of the novella from the nineteenth century to the present. Recommended as the first literature course in the Poetry Option.

LIT 2000 Introduction to Literature 6A HP (3) AS ENG
The nature and significance of literature in its various forms: fiction, drama, poetry; emphasis on the techniques of reading literature for informed enjoyment. Will not be counted toward the English major.

LIT 2010 Introduction to Fiction 6A HP (3) AS ENG
A study of the short story and novel as literary forms; approached from an historical perspective though not restricted to any historical period. Will not be counted toward the English major.

LIT 2030 Introduction to Poetry 6A HP (3) AS ENG
A study of the poem as literary form; approached from an historical perspective though not restricted to any historical period. Will not be counted toward the English major.

LIT 2040 Introduction to Drama 6A HP (3) AS ENG
A study of the major forms of drama as literature and theatre; approached from an historical perspective though not restricted to any historical period. Will not be counted toward the English major.

LIT 3022 Modern Short Novel HP (3) AS ENG
A study of modern and contemporary classic novels from the nineteenth century to the present. Includes Hugo, Flaubert, Dostoevsky, Mann, Chekhov, Kipling, Huxley, Orwell.

LIT 3051 Survey of Poetry (3) AS ENG
An introduction to the fiction, poetry, and drama written since 1945—American, British, Continental, or Multicultural. Focus may be on one, two, or all three genres or on works from any combination of nationalities.

LIT 3075 Literature of the Western World Through the Renaissance 6A (3) AS ENG
A study in English of the great works of Western Literature from its beginnings through the Renaissance, including the Bible, Homer, Sophocles, Euripides, Virgil, Cicero, Dante, Petrarch, Machiavelli, and Rabelais, among others.

LIT 3102 Literature of the Western World Since the Renaissance 6A (3) AS ENG
A study in English of the great works of Western Literature from the Neoclassic to the Modern Period, including such writers as....
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Department</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNW 3103</td>
<td>Great Literature of the World 6A MW LW (3)</td>
<td>AS ENG</td>
<td>3</td>
<td>A survey of world literature including samples from the ancient and modern era, western and eastern traditions, male and female writers, and various ethnic cultures. Focus on values, ethics, race, ethnicity, and gender; thinking and writing skills. Will not be counted toward the English major.</td>
</tr>
<tr>
<td>LNW 3144</td>
<td>Modern European Novel 6A HP (3)</td>
<td>AS ENG</td>
<td>3</td>
<td>A study of the Modern European novel in translation as it developed from the sixteenth to the present, including such writers as Dostoevsky, Flaubert, Kafka, Hesse, Camus, and Solzhenitsyn.</td>
</tr>
<tr>
<td>LIT 3301</td>
<td>Cultural Studies and the Popular Arts 6A MW LW (3)</td>
<td>AS ENG</td>
<td>3</td>
<td>A study of twentieth century culture as it is represented in the film, fiction, and other cultural artifacts of many different nationalities. Focuses on values, ethics, race, ethnicity, and gender; thinking and writing skills. Will not be counted toward the English major.</td>
</tr>
<tr>
<td>LIT 3374</td>
<td>The Bible As Literature MW (3)</td>
<td>AS ENG</td>
<td>3</td>
<td>Major emphasis on literary types, literary personalities of the Old and New Testaments, and Biblical archetypes of British and American literary classics. Fall Semester: Old Testament. Spring Semester, New Testament. Focuses on values, ethics, race, ethnicity, and gender; thinking and writing skills. May be taken twice for credit with different topics. May be counted once toward the English major.</td>
</tr>
<tr>
<td>LIT 3383</td>
<td>Religion and Existential Themes (3)</td>
<td>AS ENG</td>
<td>3</td>
<td>An introduction to the occult tradition as a major ingredient in English, Continental, and Multicultural literature; analysis of the origins, classifications, and areas of the various magic arts from classical times through the present. Focuses on values, ethics, race, ethnicity, and gender; thinking and writing skills. Will not be counted toward the English major.</td>
</tr>
<tr>
<td>LIT 4386</td>
<td>British and American Literature by Women 6A MW LW (3)</td>
<td>AS ENG</td>
<td>3</td>
<td>A study of women’s literary tradition in England and America from the seventeenth century to the present. Thematic focus includes self, marriage, sexuality, madness, race, and generations. Writing intensive. Will not be counted toward the English major.</td>
</tr>
<tr>
<td>LIT 4804</td>
<td>Literature as Cultural Study MW (3)</td>
<td>AS ENG</td>
<td>3</td>
<td>The study of literary texts as cultural artifacts. Literary texts as historical, social, political, psychological, philosophic, religious, etc. documents. Topics and works vary. Will not be counted toward the English major.</td>
</tr>
<tr>
<td>LNW 4381</td>
<td>Livy (4)</td>
<td>AS WLE</td>
<td>4</td>
<td>PR: Basic knowledge of Latin. Readings in the ideas and artistry of this Roman historian.</td>
</tr>
<tr>
<td>LNW 4500</td>
<td>Cicero and Roman Philosophy (4)</td>
<td>AS WLE</td>
<td>4</td>
<td>PR: Basic knowledge of Latin. Readings in the philosophic writings of Cicero, together with a consideration of eclectic thought.</td>
</tr>
<tr>
<td>LNW 4501</td>
<td>Seneca and Roman Philosophy (4)</td>
<td>AS WLE</td>
<td>4</td>
<td>PR: Basic knowledge of Latin. Readings in the philosophic writings of Lucius Annaeus Seneca, together with an examination of Stoic, Epicurean, and Eclectic thought.</td>
</tr>
<tr>
<td>LNW 4634</td>
<td>Catullus (4)</td>
<td>AS WLE</td>
<td>4</td>
<td>PR: Basic knowledge of Latin. Readings in Catullus. Study of techniques and tradition of Roman lyric poetry.</td>
</tr>
<tr>
<td>LNW 4654</td>
<td>Virgil (4)</td>
<td>AS WLE</td>
<td>4</td>
<td>PR: Readings in Virgil’s Aeneid. Study of the tradition, techniques, and artistry of Roman epic poetry. Available to majors and non-majors.</td>
</tr>
<tr>
<td>LNW 4670</td>
<td>Ovid (4)</td>
<td>AS WLE</td>
<td>4</td>
<td>PR: LAT 1121 or equivalent. Readings in Ovid’s Metamorphoses. Study of Ovid’s technique, style, and artistry.</td>
</tr>
</tbody>
</table>

**Additional Notes:**
- MAC 1105 College Algebra 6A QM (3) AS MTH
- MAC 1114 Precalculus and Trigonometry 6A (2) AS MTH
- MAC 1147 Precalculus Algebra and Trigonometry 6A QM (4) AS MTH
- MAC 2333 Business Calculus 6A QM (4) AS MTH

**Prerequisites:**
- MAC 1105 or MAC 1114
- MAC 2311

**Description:**
- MAC 1105 College Algebra (3) AS MTH
- MAC 1114 Precalculus Algebra and Trigonometry (4) AS MTH
- MAC 2333 Business Calculus (4) AS MTH

**Additional Requirements:**
- MAC 1105 or MAC 1114
- MAC 2311

**Course Descriptions:**
- MAC 1105: College Algebra
- MAC 1114: Precalculus Algebra and Trigonometry
- MAC 2333: Business Calculus

**Note:**
- MAC 1105 or MAC 1114 is required for MAC 1114.
The document includes information on various courses and their prerequisites. Some notable courses include:

- **MAC 2312 Calculus II**: Prerequisites include C (2.0) or better in MAC 2311 or CC. No credit for students with credit in MAC 2282 or MAC 2311.

- **MAC 2311 Calculus I**: Prerequisites include C (2.0) or better in MAC 1147, or 650 or better SAT Math score, or 29 or better ACT Math score, or 90 or better College-Level Math CPT score, and knowledge of trigonometry. No credit for math majors or students with credit in MAC 2233, MAC 2281, or MAC 2311.

- **MAC 2282 Engineering Calculus II**: Prerequisites include C (2.0) or better in MAC 2311 and C (2.0) or better in MAC 1140, or C (2.0) or better in MAC 1147, or 650 or better SAT Math score, or 29 or better ACT Math score, or 90 or better College-Level Math CPT score, and knowledge of trigonometry. No credit for math majors or for students with credit in MAC 2233, MAC 2281, or MAC 2311. Differentiation, integration, differential equations, functions of several variables, series and Taylor polynomials.

Courses such as these cover a range of topics from basic mathematics to advanced calculus, with prerequisites tailored to ensure students are adequately prepared for the coursework. The document also mentions courses in other fields such as management (MAN), human resource management (MAN), and educational mathematics (ED), each with its own set of prerequisites and learning objectives.

The inclusion of various courses indicates a diverse academic landscape, catering to different fields of study and requirements for students pursuing degrees in these areas. The prerequisites highlight the importance of foundational knowledge before advancing to more complex topics.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Degree</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAN 4905</td>
<td>Independent Study</td>
<td>1-3</td>
<td>BA MAN</td>
<td>PR: CI. Individual study contract with instructor and department chairperson. Topics to be selected by instructor and department chairperson based on students needs and interests.</td>
</tr>
<tr>
<td>MAN 4804</td>
<td>Small Business Management Counseling</td>
<td>3</td>
<td>BA MAN</td>
<td>PR: MAN 3240 or CI. A lab course where students experimentally apply behavioral science techniques in an “action-research” framework to the cycle of planned change so as to build a more effective organization.</td>
</tr>
<tr>
<td>MAN 4702</td>
<td>Disaster Recovery and Business Continuity Planning</td>
<td>3</td>
<td>BA MAN</td>
<td>PR: MAN 3240 or CI. The analysis and measurement of factors which influence organizational effectiveness and the quality of work life. Data based cases will be used by students to assess managerial and supervisory skills and to measure organizational functioning and work design.</td>
</tr>
<tr>
<td>MAN 4402</td>
<td>Employment Laws</td>
<td>3</td>
<td>BA MAN</td>
<td>Federal and state regulation of the employment relationship, including wage and hour laws; EEO; affirmative action programs; employee benefits; insurance; workers’ compensation, safety, health, employee’s personal rights; collective bargaining legislation.</td>
</tr>
<tr>
<td>MAN 4350</td>
<td>Seminar in Negotiations and Administration of Labor Agreements</td>
<td>3</td>
<td>BA MAN</td>
<td>Case studies in contract negotiation, administration, grievance settlement, and arbitration. Assumes familiarity with industrial relations system.</td>
</tr>
<tr>
<td>MAN 4504</td>
<td>Operations Management: A Systems Approach</td>
<td>3</td>
<td>BA QMB</td>
<td>PR: ISM 3431 or equivalent. Studies the problems of “operations” in all types of enterprises in both the public and private sectors. Emphasis is placed on the application of various decision science methodologies to problem situations.</td>
</tr>
<tr>
<td>MAN 4507</td>
<td>Operation Production Systems</td>
<td>3</td>
<td>BA QMB</td>
<td>PR: MAN 4504 or CI. Study of closed loop production planning and control systems. Master production planning, inventory management, materials requirements planning, capacity, management, production activity. Relationship to organizational effectiveness.</td>
</tr>
<tr>
<td>MAN 4600</td>
<td>International Management</td>
<td>3</td>
<td>BA MAN</td>
<td>PR: MAN 3025, Senior Standing or CI. Examines the effects of international cultural differences on business practices within and outside the United States and provides methods to build synergies and establish/enhance competitive advantage via those differences.</td>
</tr>
<tr>
<td>MAN 4702</td>
<td>Disaster Recovery and Business Continuity Planning</td>
<td>3</td>
<td>US EIT</td>
<td>PR: Electives may be taken at any time after completion of the first semester. When organizations are interrupted by disasters, accidents, or natural events, a loss of money, data, and/or productivity occurs. The extent to which the loss affects the organization’s health depends on its ability to deal with these disruptions.</td>
</tr>
<tr>
<td>MAN 4802</td>
<td>Entrepreneurship and Small Business Management</td>
<td>3</td>
<td>BA MAN</td>
<td>PR: ACG 2021, ACG 2071, MAR 3023, or CI. Study of the factors involved in starting and managing a small- to medium-sized business. Emphasis on conduct of pre-business feasibility study, start-up of business, successful management of the firm, and options for succession or termination.</td>
</tr>
<tr>
<td>MAN 4804</td>
<td>Small Business Management Counseling</td>
<td>3</td>
<td>BA MAN</td>
<td>PR: MAN 4802 or CI. Field application in small business settings by (a) analyzing an on-going small business and developing recommendations for making improvements; or (b) conducting a feasibility study for a new enterprise and developing a strategy for implementation if favorable.</td>
</tr>
<tr>
<td>MAN 4905</td>
<td>Independent Study (1-3)</td>
<td>1-3</td>
<td>BA MAN</td>
<td>PR: CI. S/U only. Specialized independent study determined by the students needs and interests.</td>
</tr>
<tr>
<td>MAN 4930</td>
<td>Selected Topics in Management (1-3)</td>
<td>1-3</td>
<td>BA MAN</td>
<td>Topics to be selected by instructor and department chairperson for pertinent Management issues.</td>
</tr>
<tr>
<td>MAN 4931</td>
<td>Independent Research</td>
<td>1-4</td>
<td>BA MAN</td>
<td>PR: CI. Individual study contract with instructor and department chairperson. The research project will be mutually determined by the student and instructor.</td>
</tr>
<tr>
<td>MAP 2302</td>
<td>Differential Equations I (3)</td>
<td>3</td>
<td>AS MTH</td>
<td>PR: MAC 2283 or MAC 2313. First order linear and nonlinear differential equations, higher order linear equations, applications.</td>
</tr>
<tr>
<td>MAP 5316</td>
<td>Ordinary Differential Equations (3)</td>
<td>3</td>
<td>AS MTH</td>
<td>PR: MAP 2302 and MAP 4211 or CI. Existence and uniqueness theory, properties of solutions, linear systems, stability theory. Sturm-Liouville theory.</td>
</tr>
<tr>
<td>MAP 5317</td>
<td>Ordinary Differential Equations II (3)</td>
<td>3</td>
<td>AS MTH</td>
<td>PR: MAP 5316 and MAP 5307 or CI. Topics selected from fixed point theory, comparison theory, oscillation theory, Poincare-Bendixon Theory, Lyapunov functions, eigenfunction expansions.</td>
</tr>
<tr>
<td>MAP 5345</td>
<td>Applied Partial Differential Equations (3)</td>
<td>3</td>
<td>AS MTH</td>
<td>PR: MAP 5407 or CI. Separation of variables, the heat equation, wave equation, Laplace’s equation, classification, Green’s functions with emphasis on applications.</td>
</tr>
<tr>
<td>MAP 5407</td>
<td>Methods of Applied Mathematics (3)</td>
<td>3</td>
<td>AS MTH</td>
<td>PR: MAP 2302 or CI. Sturm-Liouville theory, Fourier series, Green’s functions, matrix methods for linear systems of ordinary differential equations, and topics from calculus of variations, control theory, numerical solutions of differential equations.</td>
</tr>
<tr>
<td>MAR 2931</td>
<td>Selected Topics in Marketing</td>
<td>1-4</td>
<td>BA MKT</td>
<td>Not available for credit to upper-level students who have been admitted to the College of Business. Topics to be selected by department chairman.</td>
</tr>
<tr>
<td>MAR 3023</td>
<td>Basic Marketing</td>
<td>3</td>
<td>BA MKT</td>
<td>PR: Junior standing. Survey of the marketing of goods and services within the economy. Attention is paid to the impact of marketing on other functional areas of business as well as society.</td>
</tr>
<tr>
<td>MAR 3400</td>
<td>Professional Selling</td>
<td>3</td>
<td>BA MKT</td>
<td>PR: MAR 3023 or CI. A study of the stages of the professional selling process, and the role of sales in today’s marketing environment. Emphasis on learning adaptive selling techniques and developing effective interpersonal communications skills.</td>
</tr>
</tbody>
</table>
PR: CI. The course content will depend on the interest of faculty members and student demand.

MAT 4937 Mathematics Majors Seminar 6A (1) AS MTH
PR: MAS 4301.

MAT 4970 Mathematics Senior Thesis 6A (3) AS MTH
PR: Admission to Mathematics Honors Program and CC. S/U only. Course restricted to mathematics majors.

MAT 5002 Linear Algebra (3) AS MTH
PR: MAS 4301 or CI. Introduction to finite-dimensional vector spaces over arbitrary fields, dual spaces, canonical forms for linear transformations, inner product spaces, orthogonality, and linear independence. Laboratory includes media preparation and culturing, staining and enumeration techniques. Lecture and Laboratory. CP: PCB 3063 is recommended.

MCF 2000 Microbiology for Nursing and other Healthcare Professionals (3) NUR
Basics of microbiology for health professionals. Focus on disease states and the role of bacteria, viruses, fungi, rickettsiae and other pathogenic organisms.

MCF 2000L Microbiology Lab for Nursing and other Healthcare Professionals (1) NUR

PR: CI. Each course covers a single topic outside the usual curriculum.

MCF 2000C General Microbiology (4) AS BIO
PR: BSC 20110, BSC 20120, BSC 20111, BSC 2011L, and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023. CP: PCB 3023 or PCB 3043 or PCB 3063 or PCB 3712. Structure and function of bacteria, archaea, viruses, and eukaryotic microorganisms. Laboratory includes media preparation and culturing, staining and enumeration techniques. Lecture and Laboratory. CP: MCF 3063 is recommended.

MCF 4115C Determinative Bacteriology (5) AS BIO
PR: MCF 3020C, CHM 2210, MAC 1105 or higher-level MAC course or STA 2023. CP: PCB 3023 or PCB 3043 or PCB 3063 or PCB 3712 and CHM 2211. Survey of bacterial classification; detailed examinations of bacteria important to man in agriculture, veterinary medicine and as pathogens. Lec-lab.

MCF 4404 Microbial Physiology and Genetics (4) AS BIO
PR: MCF 3020C and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023. CP: PCB 3023 or PCB 3043 or PCB 3063 or PCB 3712 and CHM 2211. Morphology, physiology, and genetic phenomena pertinent to understanding the growth, development, ecology, regulation, and reproduction of microorganisms. Emphasizes the interdependence of physiological and genetic approaches. Lecture only.

MCF 4404L Microbial Physiology and Genetics Laboratory (1) AS BIO
CR: MCF 4404. Laboratory portion of Microbial Physiology and Genetics relating to biochemical characteristics and metabolic capabilities of bacteria. Laboratory only.

MCF 4503 Virology (3) AS BIO
PR: MCF 3020C and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023. CP: PCB 3023 or PCB 3043 or PCB 3063 or PCB 3712 and CHM 2211. The biology of viruses associated with plants, animals, and bacteria will be considered; their nature of viruses, their relationship to microorganisms of viral pathogenesis, and interactions with host cells.

MCF 4910 Microbiology Undergraduate Research (1-4) AS BIO
PR: CC. For B.S. Microbiology majors only. S/U only. Individual investigation with faculty supervision.

MCF 4934 Seminar in Microbiology (1) AS BIO
PR: Senior or advanced junior standing. S/U only. Biology majors may take for elective credit.

MCF 5206 Public Health and Pathogenic Microbiology (3) AS BIO
PR: MCF 3020C. CI. A comprehensive survey of pathogenic microbes responsible for disease in man and other animals and the impact of these infectious agents on the public health. These pathogens will be studied with respect to their morphology, cultivation, mechanisms of pathogenicity, laboratory diagnosis, and epidemiology.

MCF 5655 Applied and Environmental Biology (3) AS BIO
PR: MCF 3020C. A study of the applications of microbiology to the food/beverage industry, agriculture, public health and bioremediation. This course is a microbiology elective and has a mandatory field trip.

MCF 6206 Medical Mycology (3) AS BIO
PR: MCF 3020C or CI. A modern biological survey of the medically important fungi (yeasts and molds) important to microbiologists and environmental scientists.

MET 4002 Climatology (4) AS SPI
PR: GEO 2200 or CI. An introductory survey of climatology. A qualitative study of the dynamics and general circulation of the atmosphere. Surface and upper level atmosphere linkages in the mid latitudes will be examined. Discussion of the regional climatic patterns and anomalies throughout the world.
practices are defined as those that have both a track record and their efficacy has been empirically validated. Modules may begin with a historical perspective of the treatment of a specific population or a treatment strategy but will primarily focus on emerging methodologies.

MHS 4403 Field Experience: Behavioral Healthcare (3) FM FMH
PR: MHS 3411, MHS 4002, MHS 4408 This experiential class allows the student to observe and participate with multidisciplinary staff of a provider agency. The student will attend team meetings, observe individual, group, and case management services. Assignments will be made to maximize the student’s time investment in the field. Observations and experiences will be discussed in biweekly class meetings. Students are required to spend at least 120 hours (an average of 8 hours per week for 15 weeks) in an agency. Advisor approval required two months in advance of semester.

MHS 4741 Research Processes in Behavioral Health (3-5) FM FMH
PR: 1 course in statistics; 1 course in research methods. Application of research processes used in the interdisciplinary field of behavioral health including research design, quantitative and qualitative methods, measurement, report writing, dissemination, and grant writing. Open to all majors.

MHS 4900 Independent Research in Behavioral Health (1-4) FM FMH
PR: 1 course in statistics; 1 course in research methods. Students will conduct an independent research project in behavioral health (mental health and/or substance abuse) under the guidance of a faculty mentor. May be repeated for maximum of 8 credits.

MHS 4905 Independent Study: Guidance and Counseling Education (1-4) ED EDG
PR: DPR. S/U only. Specialized independent study determined by the interests, needs of the student. Directed study. Student must have a contract with an instructor.

MHS 4910 Selected Topics (1-4) FM FMH
The course content will depend on student demand and instructor’s interest. The course may be repeated for different topics up to 8 hours.

MHS 5020 Foundations of Mental Health Counseling (3) AS REH
PR: CC. A skill-building course on the utilization of one’s self in mental health counseling relationships. Includes study of the origin, history, professional functions and current issues in the discipline of mental health counseling.

MHS 5480 Human Growth and Development (3) AS REH
PR: RCS 5780, MHS 5020, Majors only. Human development theory as applied in psychotherapy and case management rehabilitation, mental health, and addiction settings.

MHS 5905 Directed Studies (1-4) ED EDG
Independent study determined by a selected topic.

MLS 4031 Introduction to Medical Technology (2) AS IAS
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on principles and methods of medical technology, including professional ethics, safety regulations, quality control, phlebotomy, medical terminology, laboratory math, and computer applications.

MLS 4805 Clinical Urinalysis and Body Fluids (2) AS IAS
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on the analysis of chemical substances found in the body as related to the diagnosis of
MSL 4865 Clinical Immunohematology (6) AS IAS
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on blood and tissue typing, including blood group systems, transfusion associated diseases, HLA testing, and preparation of blood and blood components for transfusion therapy.

MSL 4856 Clinical Laboratory Management and Education (1) AS IAS
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on concepts of laboratory management, including personnel staffing, reimbursements, quality assurance, and regulatory issues, and clinical education techniques, including writing, lecture presentation, and evaluation.

MMC 2100 Writing for the Mass Media (3) AS COM
PR: Sophomore standing; 2.75 overall grade point average; grade of "C" in ENC 1101, ENC 1102, and passing score on English Diagnostic Test. An introduction to the basic skills of writing for the mass media with practice in library research, persuasive writing and informational writing.

MMC 3602 Mass Communications and Society SS HP (3) AS COM
PR: MMC 2100 and MMC 3602. An introduction to the techniques of writing scripts for electronic media. Emphasis is on documentary presentation.

MMC 4200 History and Principles of Communications Law (3) AS COM
PR: MMC 2100 and MMC 3602. Historical and constitutional backgrounds of freedom and control of expression, statutory enactments, major court decisions and administrative rulings which affect print media, telecommunications, advertising, public relations, and new media.

MMC 4203 Communication Ethics (3) AS COM
PR: MMC 2100 and MMC 3602 or CI. A study of the fundamental principles and philosophies of ethics and their application to the decision-making process in the various professions of mass communications.

MMC 4420 Research Methods in Mass Communications (3) AS COM
PR: MMC 2100 and MMC 3602. An introduction to the theory and practice of quantitative and historical research methods as applicable to the study of media and mass communications. Emphasis on survey research, evaluation of data, and report writing.

MMC 4900 Directed Reading in Mass Communications (1-3) AS COM
PR: Junior standing and CI. Reading and directed study in special topics.

MMC 4910 Individual Research in Mass Communications (1-3) AS COM
PR: Junior standing and CI. The course provides means for a student to do independent study in an area not covered by a numbered course.

MMC 4936 Selected Topics in Mass Communications Studies (1-3) AS COM
PR: MMC 2100, MMC 3602 and CI. Courses designed to meet current or specific topics of interest to instructors and students.

MMC 4945 Media Internship-Seminar (3) AS COM
PR: CI and 15 hours in Mass Communications courses and completion of an 8-12 week paid media internship with newspaper, broadcast station, or other media-related agency approved by the School. S/U only. Reports on experiences for discussion and evaluation.

MUC 1002C Introduction to Tactical Leadership (2) US MIS
Introduces personal challenges & competencies critical to effective leadership; teaches personal development life skills relative to leadership, officerhip, & Army profession; focuses on learning understanding of ROTC Program & its purpose in Army.

MUC 2101C Innovative Team Leadership (2) US MIS
Explores creative & innovative tactical leadership strategies & styles. Develops knowledge of leadership values & attributes by understanding Army rank, structure, & duties. Broadens knowledge of land navigation & squad tactics.

MUC 2102C Foundations of Tactical Leadership (2) US MIS
Examines challenges of leading tactical teams in complex current operating environment; highlights dimensions of terrain analysis, patrolling & operation within team; develops greater self-awareness, communication & team building skills.

MUC 2901 Army Basic Leader Training (4) US MIS
PR: CI. A 35 day internship at Fort Knox, Kentucky that incorporates a wide range of military subjects designed to develop/evaluate leadership and officer potential. The course is intentionally stressful and designed to build individual confidence through the accomplishment of tough and demanding training. Students completing the course may qualify for entry into the ROTC Advanced Course.

MTG 4301C Adaptive Team Leadership (3) US MIS
Challenges to study, practice, & evaluate adaptive leadership skills as demands of the ROTC LDAC are presented. Uses challenging scenarios to develop self-awareness & critical thinking skills. Skills to provide specific feedback on leadership abilities.

MTG 4302C Leadership in Changing Environments (3) US MIS
Challenges to study, practice, & evaluate adaptive leadership skills as demands of ROTC Leader Development Assessment Course are presented. Develops self-awareness & critical thinking skills with challenging scenarios. Provides feedback on leader skills.

MTG 4301C Developing Adaptive Leaders (3) US MIS
Develops ability to plan, assess complex operations, functioning as member of a staff; provides performance feedback to subordinates; gives opportunities to assess risk, make ethical decisions, & lead fellow cadets; prepares in becoming Army officer.

MTG 4302C Leadership in a Complex World (3) US MIS
Explores dynamics of leadership in complex situations of current military operations in current operating environment; examines differences in courtesies, military law, principles of war & rules of engagement in face of international terror & more.

MTG 4930 Advanced Directed Study and Research (1-3) US MIS
PR: CI and permission of Professor of Military Science. Intensive individual study in a particular aspect of military science that is not covered in regular course offerings. Request for enrollment must be made prior to registration in the form of a written proposal.

MTG 4302 Introduction to Topology 6A (3) AS MTH

MTG 4303 Differential Geometry 6A (3) AS MTH
PR: MAA 4211, MAS 3105. Exterior calculus, differentiable manifolds, integration of differential forms, surfaces in 3-space, covariant derivative, curvature, matrix groups.

MTG 5316 Topology I (3) AS MTH

MTG 5317 Topology II (3) AS MTH
PR: MTG 5316. The fundamental group; elements of homotopy theory and homology theory.

MUC 2101C Composition (2) VP MUS
PR: MUT 1112 and DPR. Private instruction in original composition. Required of composition majors.

MUC 2301 Introduction To Electronic Music (3) VP MUS
Principles and philosophies of technique and repertory of electronic music; attributes, skills & actions in context of practical hands-on exercises.

MUC 2301C Introduction To Electronic Music (3) VP MUS
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MUC 2301C Introduction To Electronic Music (3) VP MUS
Principles and philosophies of technique and repertory of electronic music; attributes, skills & actions in context of practical hands-on exercises.
MUC 3231 Composition (3) VP MUS
PR: Necessary competency at senior level determined by faculty jury. DPR. Private instruction in original composition. Required of composition majors.

MUC 3401 Electronic Music-Analog Synthesis I (3) VP MUS
PR: MUC 2301 and DPR. Composition for tube medium with analog synthesizers; use of sound recording studio; reperatory or analog music synthesis; technical basis of analog systems design and construction.

MUC 3402 Electronic Music-Analog Synthesis II (3) VP MUS
PR: MUC 2301 and DPR. Composition for tube medium with analog synthesizers; use of sound recording studio; reperatory or analog music synthesis; technical basis of analog systems design and construction.

MUC 3441 Electronic Music-Digital Synthesis I (3) VP MUS
PR: MUC 3401 or MUC 3402 and DPR. Computer assisted composition for conventional instruments; composition for tape medium with computer controlled analog synthesizers; direct digital synthesis; digital systems design and construction.

MUC 3442 Electronic Music-Digital Synthesis II (3) VP MUS
PR: MUC 3401 or MUC 3402 and DPR. Computer assisted composition for conventional instruments; composition for tape medium with computer controlled analog synthesizers; direct digital synthesis; digital systems design and construction.

MUC 4404 Electronic Music-Real-Time Performance II (3) VP MUS
PR: MUC 3402 and MUC 3442 or equivalent. DPR. Composition for analog/digital equipment, performance applications; sound synthesis, interfacing electronics with conventional instruments.

MUG 3104 Basic Conducting (2) VP MUS
PR: DPR. The study and practical application of basic conducting techniques. Development of skills related to the conducting of musical scores.

MUC 4302 Instrumental Conducting (2) VP MUS
PR: MUC 3404 and DPR. A study of those techniques of conducting unique to instrumental music ensembles: baton technique, score reading, terminology, rehearsal management.

MUH 2051 Folk And Traditional Music Of World Cultures FA AF (3) VP MUS
A comparative survey of the stylistic traits and functions of the folk and traditional music, both sacred and secular, of diverse Western and non-Western cultures. For non-majors; may be taken by majors as an elective with departmental approval.

MUH 2632 Music In The United States FA AF (3) VP MUS
Designed for majors and non-majors, this course will use live performances, videotapes, and recordings to illustrate music as practiced in America from Colonial to present times. Included in the course will be study of the contributions of various ethnic/minority groups, and discussions of the relevant social issues connected with these contributions.

MUH 3940 Internship: Music Education (6-10) VP MUS

MUH 4058 Intercultural Music In The Twentieth Century FA (3) VP MUS
A comparative study of the contributions of various ethnic/racial groups to American music in the 20th century. Includes study of African, Asian, and Latin American music.

MUH 4801 History Of Jazz (3) VP MUS
PR: DPR. An in-depth study of the historical development of jazz, including the representative musical literature and sociological implications.

MUH 5401 Introduction To Jazz Literature 6A HP FA (3) VP MUS
PR: MUT 1112, DPR. A survey of representative music exemplars of the past and present with emphasis on the study of styles and form. Required for music majors.

MUL 3001 Issues In Music FA (2-3) VP MUS
Open only to non-music majors. Lectures and live performances by faculty artist of significant works from the literature for the piano; analysis and illustration in performance of the abstract and aesthetic elements in music which vitaly concern the artist-performer.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Department</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUL 3012</td>
<td>Music in Your Life FA</td>
<td>(3)</td>
<td>VP MUS</td>
<td>Open only to non-music majors. A study in the art of music and its materials, designed to develop an understanding of basic principles of music and a technique for listening to music.</td>
</tr>
<tr>
<td>MUN 1100</td>
<td>University Pep Band (1-3)</td>
<td>VP MUS</td>
<td></td>
<td>This course provides performance experiences with the Pep Band. The course is open to any major area. Fall Term participation in Marching Band is required prior to enrollment.</td>
</tr>
<tr>
<td>MUN 3143</td>
<td>Wind Ensemble (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3213</td>
<td>University Orchestra (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3313</td>
<td>University Singers (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3343</td>
<td>Chamber Singers (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3383</td>
<td>University-Community Chorus (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3411</td>
<td>String Quartet (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3420</td>
<td>Saxophone Ensemble (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3421</td>
<td>Flute Choir (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3424</td>
<td>Woodwind Quintet (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3431</td>
<td>Brass Quintet (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3432</td>
<td>Horn Quartet (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3433</td>
<td>Brass Choir (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3443</td>
<td>Percussion Ensemble (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3444</td>
<td>Marimba Ensemble (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3453</td>
<td>Piano Ensemble (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3713</td>
<td>Wind Ensemble (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUN 3714</td>
<td>Chamber Ensemble (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUO 3503</td>
<td>Opera Workshop (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Open to all university students with the necessary proficiency in their performance media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.</td>
</tr>
<tr>
<td>MUS 2201</td>
<td>Language Diction For Singers (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Required of voice performance majors. Specialized study in Language Diction for Singers. Specific language varies, to be arranged at each course offering.</td>
</tr>
<tr>
<td>MUS 4900</td>
<td>Directed Reading (1-3)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Selection of topic and materials must be agreed upon and appropriate credit must be assigned prior to registration. A contract with all necessary signatures is required for registration.</td>
</tr>
<tr>
<td>MUS 4905</td>
<td>Directed Study (1-4)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Independent studies in the various areas of music; course of study and credits must be assigned prior to registration.</td>
</tr>
<tr>
<td>MUS 4930</td>
<td>Selected Topics in Music (1-4)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. The content of the course will be governed by student demand and instructor interest.</td>
</tr>
<tr>
<td>MUS 4931</td>
<td>Selected Studio Topics In Music (1-4)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. The content of the course will be governed by student demand and instructor interest.</td>
</tr>
<tr>
<td>MUS 4935</td>
<td>Music Senior Seminar (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. S/U only. To aid majors to understand, appraise and perfect their own art through critical and aesthetic judgments of their colleagues.</td>
</tr>
<tr>
<td>MUS 5905</td>
<td>Directed Study (1-4)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Independent studies in the various areas of music; course of study and credits must be assigned prior to registration.</td>
</tr>
<tr>
<td>MUT 1001</td>
<td>Rudiments Of Music (2)</td>
<td>VP MUS</td>
<td></td>
<td>Open to non-music majors; development of skills in hearing and performing music and in basic notation. Will not count as degree credit for music majors.</td>
</tr>
<tr>
<td>MUT 1111</td>
<td>Music Theory I (3)</td>
<td>VP MUS</td>
<td></td>
<td>PR: DPR. Required of music majors; development of skills in perceiving and writing music through the use of aural and visual analysis and examples from all historical periods of music literature.</td>
</tr>
<tr>
<td>MUT 1112</td>
<td>Music Theory II (3)</td>
<td>VP MUS</td>
<td></td>
<td>PR: MUT 1111, DPR. Required of music majors; development of skills in perceiving and writing music through the use of aural and visual analysis and examples from all historical periods of music literature.</td>
</tr>
<tr>
<td>MUT 1241</td>
<td>Aural Theory I (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: To be taken concurrently with MUT 1111, MUT 1112. Course designed to begin training in aural recognition and vocal realization of materials used in music composition. Includes rhythmic, melodic and harmonic dictation, and sight singing.</td>
</tr>
<tr>
<td>MUT 1242</td>
<td>Aural Theory II (1)</td>
<td>VP MUS</td>
<td></td>
<td>PR: MUT 1241, DPR. Course designed to begin training in aural recognition and vocal realization of materials used in music composition. Includes rhythmic, melodic and harmonic dictation, and sight singing.</td>
</tr>
<tr>
<td>MUT 2116</td>
<td>Music Theory III (3)</td>
<td>VP MUS</td>
<td></td>
<td>PR: MUT 1112, DPR. Required of music majors, continuation of MUT 1111 and 1112.</td>
</tr>
</tbody>
</table>
MUT 2117 Music Theory IV (3) VP MUS
PR: MUT 2116, DPR. Required of music majors, continuation of MUT 1111, 1112, and 2116.
MUT 2246 Aural Theory III (1) VP MUS
PR: MUT 1242. To be taken concurrently with MUT 2116, MUT 2117, DPR. Course designed to continue training in aural recognition and vocal realization of materials used in music composition. Includes rhythmic, melodic and harmonic dictation, and sight singing.
MUT 2247 Aural Theory IV (1) VP MUS
PR: MUT 2246. To be taken concurrently with MUT 2116, MUT 2117, DPR. Course designed to continue training in aural recognition and vocal realization of materials used in music composition. Includes rhythmic, melodic and harmonic dictation, and sight singing.
MUT 2641 Jazz Theory And Improvisation I (2) VP MUS
PR: MUT 1112 and/or DPR. A study of jazz improvisational techniques and related jazz theory.
MUT 2642 Jazz Theory And Improvisation II (2) VP MUS
PR: MUT 2641 or DPR. A study of jazz improvisational techniques and related jazz theory.
MUT 3353 Jazz Composition and Arranging I (3) VP MUS
PR: MUT 1112 and DPR. Course designed to develop arranging and/or compositional skills in the jazz idiom through the study of jazz orchestration, harmonic, and melodic practices.
MUT 3354 Jazz Composition and Arranging II (3) VP MUS
PR: MUT 3353 and DPR. Course designed to develop arranging and/or compositional skills in the jazz idiom through the study of jazz orchestration, harmonic, and melodic practices.
MUT 3663 Advanced Jazz Improvisation I (2) VP MUS
PR: MUT 2642 or DPR. A studio course study of the improvisational solos of the major innovators in jazz. Oriented toward the continuing development of students’ solosing ability. Students are required to enroll in Jazz Chamber Ensemble as a lab. Open to majors and non-majors.
MUT 3664 Advanced Jazz Improvisation II (2) VP MUS
PR: MUT 3663, DPR. A continuation of Jazz Styles and Analysis I with the emphasis on contemporary jazz artists. Students are required to enroll in Jazz Chamber Ensemble as a lab. Open to majors and non-majors.
MUT 4311 Orchestration I (2) VP MUS
PR: DPR. Intensive study and practice in scoring music for various combinations of instruments, including symphony orchestra, band, and smaller ensembles of string, woodwind, brass, and percussion instruments.
MUT 4312 Orchestration II (2) VP MUS
PR: MUT 4310, DPR. Intensive study and practice in scoring music for various combinations of instruments, including symphony orchestra, band, and smaller ensembles of string, woodwind, brass, and percussion instruments.
MUT 4421 Eighteenth Century Practice (3) VP MUS
PR: MUT 2117, DPR. An intensive study of the contrapuntal practice of the 18th century; development of skills in perceiving and writing music in the style of the period through the use of aural and visual analysis.
MUT 4571 Twentieth Century Practice (3) VP MUS
PR: MUT 2117, DPR. A study of 20th century theoretical concepts; development of skills in perceiving and writing music in contemporary styles through the use of aural and visual analysis.
MUT 5051 Graduate Review Of Music Theory (2) VP MUS
PR: DPR. A graduate level review of basic theoretical concepts with emphasis on the common practice period. The course serves to satisfy deficiencies in music theory and does not count toward the graduate degree requirements.
MVB 1211 Applied Trumpet (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.
MVB 1212 Applied French Horn (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.
MVB 1213 Applied Trombone (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.
MVB 1214 Applied Euphonium (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.
MVB 1215 Applied Tuba (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.
MVB 1311 Trumpet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 1312 French Horn Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 1313 Trombone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 1314 Euphonium Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 1315 Tuba Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 1411 Trumpet Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 1412 French Horn Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 1413 Trombone Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 1414 Euphonium Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 1415 Tuba Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 2321 Trumpet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 2322 French Horn Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 2323 Trombone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVB 2324 Euphonium Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVJ 1219 Jazz Percussion (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVJ 1213 Applied Jazz Guitar (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVJ 1214 Applied Jazz Bass (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVJ 1219 Jazz Percussion (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVJ 1213 Applied Jazz Guitar (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVJ 1214 Applied Jazz Bass (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVJ 1219 Jazz Percussion (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.
major and for a limited number of nonmusic majors who have had prior musical training.

MVJ 1310 Applied Jazz Piano Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 1313 Jazz Guitar Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 1314 Jazz Bass Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 1319 Applied Jazz Percussion Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 1410 Applied Jazz Piano Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 1413 Jazz Guitar Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 1414 Jazz Bass Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 2320 Applied Jazz Piano Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 2323 Jazz Guitar Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 2324 Jazz Bass Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 2330 Applied Jazz Piano Major (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 2333 Jazz Guitar Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 2334 Jazz Bass Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 3339 Applied Jazz Percussion Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 3340 Applied Jazz Piano Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 3343 Jazz Guitar Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 3344 Jazz Bass Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 4340 Jazz Piano Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 4343 Jazz Guitar Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 4344 Jazz Bass Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 4349 Jazz Percussion Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVJ 4440 Jazz Piano Major (3) VP MUS
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 4443 Jazz Guitar Major (3) VP MUS
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 4444 Jazz Bass Major (3) VP MUS
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 4449 Jazz Percussion Major (3) VP MUS
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 4950 Applied Jazz Performance (3) VP MUS
PR: MUT 2642 and DPR. Necessary competency at junior level determined by faculty jury examination. Required of all music education and composition majors. Private and class instruction.

MVJ 5250 Applied Jazz Piano Secondary (2) VP MUS
PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble. Private and class instruction.

MVJ 5252 Applied Jazz Bass Secondary (2) VP MUS
PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble. Private and class instruction.

MVJ 5253 Applied Jazz Guitar Secondary (2) VP MUS
PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble. Private and class instruction.

MVJ 5254 Applied Jazz Bass Secondary (2) VP MUS
PR: Necessary competency determined by faculty jury audition. Required of all applied music majors. Required registration in major performance ensemble. Private and class instruction.
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**Notes:**
- PR: Necessary competency determined by faculty jury examination. Required of all applied music majors. Private and class instruction.
- PR: DPR. Necessary competency determined by faculty jury examination. Required of all applied music majors. Private and class instruction.
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- PR: DPR. Necessary competency determined by faculty jury examination. Required of all applied music majors. Private and class instruction.
MVS 1212 Applied Viola (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVS 1213 Applied Violoncello (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVS 1214 Applied Double Bass (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVS 1311 Violin Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 1312 Viola Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 1313 Violoncello Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 1314 Double Bass Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 1411 Violin Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 1412 Viola Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 1413 Cello Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 1414 Double Bass Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 2221 Violin Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 2222 Viola Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 2223 Violoncello Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 2224 Double Bass Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVS 2421 Violin Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.
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</tr>
<tr>
<td>MVV 5254</td>
<td>Applied Double Bass</td>
<td>2</td>
<td>Necessary competency at Junior level determined by faculty jury examination.</td>
</tr>
<tr>
<td>MVW 2321</td>
<td>Voice Principal</td>
<td>2</td>
<td>Necessary competency at Sophomore level determined by faculty jury examination.</td>
</tr>
<tr>
<td>MVW 3331</td>
<td>Voice Principal</td>
<td>2</td>
<td>Necessary competency at Junior level determined by faculty jury examination.</td>
</tr>
<tr>
<td>MVW 4341</td>
<td>Voice Principal</td>
<td>2</td>
<td>Necessary competency at Junior level determined by faculty jury examination.</td>
</tr>
<tr>
<td>MVW 4441</td>
<td>Voice Major</td>
<td>3</td>
<td>Necessary competency at Senior level determined by faculty jury examination.</td>
</tr>
<tr>
<td>MVW 5251</td>
<td>Applied Voice</td>
<td>2</td>
<td>Necessary competency at Senior level determined by faculty jury examination.</td>
</tr>
<tr>
<td>MVW 1211</td>
<td>Applied Flute</td>
<td>1</td>
<td>Necessary competency at Junior level determined by faculty jury examination.</td>
</tr>
<tr>
<td>MVW 1212</td>
<td>Applied Oboe</td>
<td>1</td>
<td>Necessary competency at Junior level determined by faculty jury examination.</td>
</tr>
</tbody>
</table>

Gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

Open to a limited number of nonmusic majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

Open to a limited number of nonmusic majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVW 2322 Clarinet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 2324 Saxophone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 2325 Saxophone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 2421 Flute Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 2422 Oboe Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 2424 Bassoon Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 2425 Saxophone Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 3331 Flute Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 3333 Clarinet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 3334 Bassoon Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 3335 Saxophone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 3336 Flute Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 3432 Flute Major (3) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 3434 Bassoon Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 3435 Saxophone Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 4341 Flute Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 4342 Oboe Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 4343 Clarinet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 4344 Bassoon Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 4345 Saxophone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 4346 Clarinet Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 4442 Oboe Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 4443 Clarinet Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 4444 Bassoon Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 4445 Saxophone Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 5254 Applied Bassoon (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 5251 Applied Flute (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 5252 Applied Oboe (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 5253 Applied Clarinet (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 5255 Applied Saxophone (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

NGR 5151L Accelerated Fundamentals Clinical (2) NU NUR
Clinical experience in fundamentals of clinical nursing practice. Focuses on developing effective communication skills, critical thinking physical assessment, and concepts of health and illness to meet basic needs of the individual across the life span.

NGR 5580L Accelerated Fundamentals Clinical I (4) NU NUR
Clinical interventions for patients across the life span. Emphasis on advancing communication and clinical judgment skills in therapeutic nursing interventions for patients across the life span.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 3026L</td>
<td>Nursing Fundamentals Clinical (4) NU NUR</td>
<td>PR: Admission to the nursing major or CI; CR: NUR 3026L. Focus on developing effective communication &amp; critical thinking in applying nursing process to meet the basic needs of the individual across the life span.</td>
</tr>
<tr>
<td>NUR 3066L</td>
<td>Clinical Experience in Health Assessment - RN (1) NU NUR</td>
<td>PR: Admission to nursing major or CI. CR: NUR 3066L. Clinical experience on history taking, physical assessment skills basic to biopsychosocial assessment and physical examination of adults and children. Emphasizes diagnostic reasoning and identification of alteration in functional health patterns.</td>
</tr>
<tr>
<td>NUR 3125</td>
<td>Pathophysiology for Nursing Practice (4) NU NUR</td>
<td>PR: Admission to the nursing major or CI. Central concepts of pathophysiology: cells, tissues, organs and systems. Provides essential knowledge base in pathophysiology across the lifespan for professional nursing practice.</td>
</tr>
<tr>
<td>NSC 2211</td>
<td>Evolution of Warfare (3) US NVY</td>
<td>A survey of military history emphasizing principles of warfare, strategy and tactics, and significant military leaders and organizations.</td>
</tr>
<tr>
<td>NUR 3215</td>
<td>Medical Surgical Nursing I (3) NU NUR</td>
<td>PR: NUR 3026, NUR 3026L, NUR 3066L, NUR 3076, NUR 3125, NUR 3215L. Focuses on the nursing assessment, prevention, and management of selected health care problems in adults of all ages. Critical thinking is used to analyze the effects of changes in health status and impact of nursing intervention for: patients with alteration in Fluid and Electrolyte Balance, Renal System, Hemotologic System, Cardiac, Pulmonary System, Renal System, Endocrine, Cancer, Multisystem Dysfunction.</td>
</tr>
<tr>
<td>NUR 3240</td>
<td>Pharmacology in Nursing Practice (3) NU NUR</td>
<td>PR: Admission to the nursing major or CI. Focus on the basic and clinical concepts of pharmacology in nursing practice. Examines pharmacoanalytical; pharmacodynamics; pharmacokinetics; adverse reactions and contraindications; therapeutic indications and nursing implications.</td>
</tr>
<tr>
<td>NUR 3252L</td>
<td>Psychiatric/Mental Health Nursing (3) NU NUR</td>
<td>PR: NUR 3076, NUR 3066, NUR 3125, NUR 3262 and NUR 3262L. CR: NUR 3252L. Explores mind, body, and spirit alterations in normal health patterns. Special emphasis on acute and chronic mental illness. Examines psychopathology, psychopharmacologic therapies and community resources and intervention.</td>
</tr>
<tr>
<td>NUR 3252L</td>
<td>Psychiatric/Mental Health Nursing Clinical (3) NU NUR</td>
<td>PR: NUR 3076, NUR 3066, NUR 3125, NUR 3262 and NUR 3262L. CR: NUR 3252L. Focus on clinical intervention using critical thinking and communication skills with patients who require complex psychiatric rehabilitative care. Opportunities are offered to apply knowledge of psychopathology and psychopharmacologic therapies across the lifespan.</td>
</tr>
<tr>
<td>NUR 3805</td>
<td>Education Transitions for Registered Nurses (3) NU NUR</td>
<td>PR: Admission to the nursing major. Transition to professional nursing for the registered nurse, its theoretical perspective and empirical bases and essential skills for success in nursing education. Focus on developing a variety of learning strategies and approaches to academic achievement.</td>
</tr>
<tr>
<td>NUR 3826</td>
<td>Ethical Legal Aspects in Nursing and Health Care Mw (3) NU NUR</td>
<td>PR: CI. Nursing Majors. Introduction to contemporary bioethical and legal issues confronting health care providers in a variety of settings. Focuses on identification of legal and ethical principles underlying the decision-making process in nursing and health care.</td>
</tr>
<tr>
<td>NUR 4028L</td>
<td>Accelerated Fundamentals Laboratory (1) NU NUR</td>
<td>PR: Permission of Professor of Nursing Science. Intensive experience on history taking, physical assessment skills basic to biopsychosocial assessment and physical examination of adults and children. Emphasizes diagnostic reasoning and identification of alteration in functional health patterns.</td>
</tr>
<tr>
<td>NUR 4097</td>
<td>Introduction to Nursing Humanities Mw (3) NU NUR</td>
<td>CR: NUR 3066. Critical thinking and communication skills when applying concepts of health to meet the basic needs of the individual across the life span from within the context of the family.</td>
</tr>
</tbody>
</table>
multidisciplinary professional literature focusing on human disease and response to health: ill health, death, and dying.

NUR 4098 Perioperative Nursing (3) NU NUR
PR: Admission to the nursing major or Registered Nurse. Provide nursing students or Registered Nurses with basic knowledge and clinical skills and function in an entry level. Extensive classroom and clinical experience in aseptic technique and considerations for various types of surgical procedures are included.

NUR 4165 Nursing Inquiry (3) NU NUR
PR: Admission to the nursing major or CI. An introductory course in statistics is recommended. An analysis of the research process. Emphasis on identification of researchable nursing problems and evaluations of research that is applicable to nursing practice. Focus on evidence-based practice for nursing.

NUR 4178 Complimentary and Alternative Therapies MW (3) NU NUR
Explore and analyze Complementary and Alternative Therapies and their effectiveness and appropriateness. Discuss Alternative Medical Systems, Mind-Body Interventions, Biologically Based Therapies, Manipulative and Body-Based Methods, and Energy Therapies.

NUR 4195 An Interdisciplinary Perspective in HIV Disease 6A MW/LW (3) NU NUR
Provides an interdisciplinary perspective on HIV disease. Topics include the etiology, spectrum, and treatment of HIV disease; international health implications; issues of race, gender, and culture; values, ethics, and their influences on responses to HIV; and how the media has shaped the epidemic.

NUR 4216 Medical Surgical Nursing (4) NU NUR
PR: NUR 3215, NUR 3215L, NUR 3145, CR: NUR 4216L. Focus on the nursing assessment, prevention, and management of multiple health care problems. Critical thinking is used to analyze the effects of changes in health status and the impact of nursing intervention for patients with alterations in Visual and Auditory systems, Neurological systems, Musculoskeletal systems, Gastrointestinal systems, and Reproductive systems.

NUR 4216L Medical Surgical Nursing Clinical II (5) NU NUR

NUR 4235L Accelerated Integrated Clinical I (5) NU NUR
Focus on critical thinking, effective communication and nursing interventions for individuals of all ages in the in-patient and community settings.

NUR 4257 Critical Care (2) NU NUR
PR: Nursing Majors or CI. Basic concepts of critical care nursing, focusing on selected health problems to analyze the affects of changes in health. Selected topics in critical care nursing.

NUR 4455 Women’s Health Nursing (2) NU NUR
PR: NUR 4216, NUR 4216L, CR: NUR 4635L, NUR 4636, NUR 4355. Focus on health promotion, identification of risk factors, illness care, and health restoration related to the physiological and psychological changes occurring during a woman’s life cycle including pregnancy.

NUR 4635L Integrated Nursing Clinical: Community/Public Health, Children and Adolescent Health, and Women’s Health (7) NU NUR
PR: NUR 4216, NUR 4216L. CR: NUR 4455, NUR 4636, NUR 4355. Provides clinical learning experiences in diverse community and hospital settings. Focuses on nursing care designed to prevent and/or reduce risk of disease and injury, promote health and wellness, and treat illness and injury in children, adolescents, adults and families, and diverse community populations across the age spectrum.

NUR 4636 Community/Public Health: Population-Focused Nursing MW (3) NU NUR
PR: NUR 4216, NUR 4216L or CI. In-depth examination of community health nursing, public health, epidemiology, culture, and environment essential to preventing illness and injury and promoting and preserving health among diverse populations at community level in urban and rural settings. Focus on nursing care designed to prevent and/or reduce risk of disease and injury, and promote health and wellness to diverse populations across the age spectrum.

NUR 4655 Cultural Diversity in Health and Issues MW (3) NU NUR
PR: NUR 4455, NUR 4355, NUR 4636, NUR 4636L or CI. Focus on the impact of culture on health, illness, and the meanings these terms carry for members of differing sociocultural populations. Health-related practices, values, strategies for health care and beliefs among cultural groups will be analyzed.

NUR 4671 Accelerated Integrated Clinical II (5) NU NUR
Focus on nursing interventions for the patient with physical and mental health problems. Therapeutic communication and clinical judgment to implement nursing interventions with the patient and family.

NUR 4835 Selected Topics In Nursing (1-5) NU NUR
PR: Junior or senior standing or permission of faculty. Content will depend upon student demand and faculty interest and may focus on any area relevant to nursing practice. May involve class, seminar, and/or clinical laboratory.

NUR 4940 Internship for the Registered Nurse First Assistant (4) NU NUR
PR: CI. This course provides 120 hours of clinical experiences in the roles and responsibilities and technical skills required of the registered nurse first assistant (RNFA).

NUR 4948L Preceptorship (6) NU NUR
PR: NUR 4216, NUR 4216L, NUR 4455, NUR 4636, NUR 4636L. Individually contracted 150 hours of clinical practicum collaboratively planned by students, faculty, and agency personnel. Opportunity to synthesize theory and clinical practice for professional nursing.

OCE 2001 Introduction to Oceanography NS (3) MS MSC
Overview of biological, chemical, geological, and physical oceanography.

OCE 4930 Selected Topics in Marine Science (1-4) MS MSC
Selected topics in marine science including marine biology, marine chemistry, marine geology and geophysics, physical oceanography, and interdisciplinary topics relating to marine environments.

ORI 2000 Introduction to Communication As Performance (3) AS SPE
Designed to develop proficiency in the understanding and oral communication of literary and other written materials.

ORI 3950 Communication As Performance Laboratory (1-3) AS SPE
PR: SPC 2600 AND COM 2000 AND ORI 2000, each with a grade of C or above, or CI. The study, rehearsal, and performance of literature for Readers Theatre and Chamber Theatre productions.

ORI 4120 Performance of Poetry (3) AS SPE
PR: SPC 2600 AND COM 2000 AND ORI 2000, each with a grade of C or above, or CI. Critical appreciation of lyric and narrative poetry and communication of that appreciation to audience. Study of poetic theory and prosodic techniques.

ORI 4310 Group Performance of Literature (3) AS SPE
PR: SPC 2600 AND COM 2000 AND ORI 2000, each with a grade of C or above, or CI. Designed to introduce the student to and give experience in various forms of group approaches to performance.

ORI 4931 Performance and Video (3) AS SPE
PR: ORI 2000. CR: ORI 4950. This course features adaptation, direction, and performance of literature for video productions.

ORI 5930 Topics in Performance Genres (3) AS SPE
Variable topics course.
PAD 4144 Nonprofit Organizations and Public Policy 6A MW (3) AS PAD
Role and importance of third sector (voluntary) organizations in American society; focus on public policy through service in a voluntary organization.

PAD 4204 Public Financial Administration (3) AS PAD
Analysis of problems in the growth and development of public budgetary theory and Federal budgetary innovations.

PAD 4419 Personnel & Supervision in Today’s Organizations (3) AS PAD
Introduces students to concepts, principles and practices of personnel management and supervision that influence the attainment of desired performance goals in today’s public and not-for-profit organizations. Course participants will explore issues that influence the successful management of human resources in dynamic employment settings.

PAD 5012 Managing Information Resources in the Public Sector (3) AS PAD
Introduces students to the fundamental concepts, theories, principles and practices in public information management. Internet access is required.

PAD 4930 Selected Topics in Public Administration and Public Policy (3) AS PAD
Selected issues and topics in Public Administration and Public Policy with course content based on student demand and instructor's interest. May be repeated for up to 6 credits as topics vary.

PAD 5035 Issues in Public Administration and Public Policy (3) AS PAD
Sr. & GS only. Selected issues and topics in Public Administration and Public Policy.

PAD 5044 Environment of Public Administration (3) AS PAD
Examination of the legal, political, and ethical environment in which public managers work.

PAD 5333 Concepts and Issues in Public Planning (3) AS PAD
PR: URP 4050 or URP 6056, GS or Sr. Analysis of basic concepts, issues, and strategies of planning, policy determination, collection of information, and decision-making.

PAD 5605 Administrative Law and Regulation (3) AS PAD
An examination of the constitutional and statutory base and limitations of the administrative process, administrative adjudication, rule-making, and the judicial review of such actions. An examination of the Constitutional and statutory base and limitations of the administrative process, administrative adjudication, rule-making, and the judicial review of such actions. Attention is also directed to regulatory commissions, their functions, powers, management and relationship with other branches of government.

PAD 5807 Urban and Local Government Administration (3) AS PAD
GS or Sr. Analysis of the role of the administrator at the municipal level, the division of functions, policy formation, alternative governmental structures, effects on the administrative process.

PAD 5836 Comparative Public Administration (3) AS PAD
GS or Sr. How organizations and managers perform within a particular environment, potential impact of innovation, and how service is accomplished in a variety of socio-economic environments.

PCB 1511 Molecular and Human Genetics (3) US DEA
PR: Acceptance in USF-Hillsborough County Biomedical and Life Science Program. Molecular genetics with applications to biomedical science; genetic engineering; chromosomes, their molecular architecture, abnormalities, and other topics. Laboratory included.

PCB 1910 Topics in Biomedical Science (3) US DEA
PR: Acceptance in USF-Hillsborough County Biomedical and Life Science Program. Designed to initiate high school students to the fundamentals of scientific research. Students are given lectures and perform laboratory exercises in pathogenic microbiology, immunology, marine biology, and plant biochemistry. Most of their time is spent working on individual research.

PCB 3023 Cell Biology (3) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L & CHM 2045, CHM 2046 & MAC 1105 or higher-level MAC course or STA 2023. CP: CHM 2210. A survey of the marine environment, the types of organisms found inhabiting a variety of marine habitats, and the adaptations of the organisms to those habitats. Emphasis is placed on shallow water Florida environments. Lecture only.

PCB 3023L Cell Biology Laboratory (1) AS BIO
CP: PCB 3023. Laboratory portion of Cell Biology. Metabolic processes within the cell.

PCB 3043 Principles of Ecology (3) AS BIO
BSC 2010, BSC 2010L, BSC 2011, BSC 2011L & CHM 2045, CHM 2046 & MAC 1105 or higher-level MAC course or STA 2023. An introduction to the basic principles and concepts of ecology at the ecosystem, community, and population level of organization. Lecture only.

PCB 3043L Principles of Ecology Laboratory (1) AS BIO

PCB 3063 General Genetics (3) AS BIO
BSC 2010, BSC 2010L, BSC 2011, BSC 2011L & CHM 2045, CHM 2046 & MAC 1105 or higher-level MAC course or STA 2023. CP: CHM 2210. Introduction to genetics including the fundamental concepts of Mendelian, molecular and population genetics. Lecture only.

PCB 3063L General Genetics Laboratory (1) AS BIO
CP: PCB 3063. Laboratory investigation techniques in general genetics including Mendelian and non-Mendelian relationships, and gene interactions.

PCB 4721 General Physiology (3) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2111L and CHM 2045, CHM 2046 & MAC 1105 or higher-level MAC course or STA 2023. Comparative analysis of animal structure and function: organ systems and activities of body tissue and organs. Functional responses of plants to both internal and environmental signals lecture only.

PCB 4731L General Physiology Laboratory (1) AS BIO
PR: PCB 4731. Laboratory portion of General Physiology.

PCB 4734 Principles of Immunology (3) AS BIO
PR: PCB 3032 or PCB 3063 or MCB 3020C and PCB 2020 & MAC 1105 or higher-level MAC course or STA 2023. CP: PCB 3032 or PCB 3043 or PCB 3063 or CHM 3712 & CHM 2210. Emphasis is on organization and functions of vertebrate immune system. Basic cellular and molecular mechanisms of immune responses in health and disease are addressed as well as the principles and applications of immunological methods. Lecture only.

PCB 4522 Experimental Genetics (3) AS BIO
Experimental analysis of genetic systems. Lec-Lab.

PCB 4674 Organic Evolution (3) AS BIO
PR: PCB 3063. An introduction to modern evolutionary theory. Lecture on population genetics, adaptations, speciation theory, phylogeny, human evolution and related areas. Lec-dis.

PCB 4723L Animal Physiology Laboratory (1) AS BIO
CP: PCB 4723. Laboratory portion of Animal Physiology.

PCB 4843 Principles of Neuroscience (3) AS BIO
PR: PCB 4723 and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023 and PHY 2053. CP: CHM 2211. Study of the mammalian brain's structure and function, with an emphasis on human neuroanatomy, neuropharmacology, and neurophysiology. Topics include brain imaging, dementia, mechanisms of learning/memory, and neuropathological processes. Lecture only.

PCB 5256 Developmental Biology (3) AS BIO
PR: PCB 3032, PCB 3063 and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023 and CI. CP: CHM 2211. Study of the mammalian brain’s structure and function, with an emphasis on human neuroanatomy, neuropharmacology, and neurophysiology. Topics include brain imaging, dementia, mechanisms of learning/memory, and neuropathological processes. Lecture only.

PCB 5307 Limnology (3) AS BIO
PR: PCB 3043 and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023 and PHY 2053. CP: CHM 2211. An introduction to the physical, chemical, and biological nature of fresh-water environments. Lecture only.

PCB 5307L Limnology Laboratory (1) AS BIO
CP: PCB 5307. Laboratory portion of Limnology. Laboratory and field experience in the area of aquatic ecology.

PCB 5415 Behavioral Ecology (3) AS BIO
PR: PCB 3043 and PCB 3063 or PCB 4610 and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023. CP: CHM 2211. An emphasis on the evolutionary mechanisms that influence
an organisms behavioral responses to environmental events. The theoretical framework is presented and analyzed. Lecture only.

PCB 5525 Molecular Genetics (3) AS BIO
PR: PCB 3063, CI. Detailed examination of DNA, RNA and protein synthesis; the effects of mutations on proteins, cellular control; selected aspects of viral, bacterial, and fungal genetics.

PEL 1121 Golf I (2) ED EDJ
S/U only. Introductory experience in the sport of golf. Fundamental skills, information, strategy, and participation.

PEL 1341 Tennis I (2) ED EDJ
S/U only. Introductory experiences in the sport of tennis. Basic skills, playing strategies, lecture, demonstration, and participation.

PEL 2122 Golf II (2) ED EDJ
S/U only. Continuation of PEL 1121. Emphasis on course play and refinement of strokes.

PEL 2342 Tennis II (2) ED EDJ
S/U only. Continuation of PEL 1341. Refinement of basic skills, supplementary strokes, greater emphasis on tactics and playing strategies.

PEL 2441 Racquetball (2) ED EDJ
S/U only. Development and refinement of the skills and strategies of racquetball with opportunity for competition and tournament play.

PEM 2131 Weight Training (2) ED EDJ
S/U only. Knowledge and techniques necessary for increasing muscle function. Assessment of status and development of a personal program

PEM 2411 Karate (2) ED EDJ
S/U only. Introductory experiences in the sport of Karate. Fundamental skills, strategy, information, and participation.

PEM 2930 Selected Topics (1-2) ED EDJ
S/U only. DPR. Activities offered are selected to reflect student need and faculty interest.

PEL 1121 Swimming I (2) ED EDJ
S/U only. Development and refinement of the essential skills and information necessary for enjoying swimming. Emphasis on personal safety.

PEL 2113 Lifeguard Training (2) ED EDJ
PR: PEN 2122 or equivalent. S/U only. Knowledge and skills necessary for saving the lives of others in the event of aquatic emergency. ARC certification offered.

PEL 2136 Skin & Scuba Diving (2) ED EDJ
PR: PEN 2172 or equivalent. S/U only. Development of the essential skills and knowledge necessary for enjoying the sport of Skin & Scuba Diving. Correct utilization and care of equipment; emphasis on personal safety.

PET 3252 Issues in Sport MW (3) ED EDJ
PR: Junior, Senior standing. A study of organized sport as a pervasive part of contemporary society. By increasing understanding of some of the issues and controversies based on the structure of sport and society, individuals will be able to understand and improve sport experiences for themselves and others.

PET 3301 Motor Behavior (3) ED EDP
PR: CC. Study of the assessment, evaluation and motor development performance of children and adolescents and application of principles of motor skills acquisition in physical education instruction. Open to non-majors.

PET 3211 Stress Management (2) ED EDP
PR: Admission to the Exercise Science Program. This course will focus on the health and psycho-physiological aspects of stress. A variety of topics will be addressed for self-regulating stress such as changing perceptions, time management, communication, biofeedback, exercise, and muscle relaxation.

PET 3252 Issues in Sport MW (3) ED EDP
PR: Junior, Senior standing. A study of organized sport as a pervasive part of contemporary society. By increasing understanding of some of the issues and controversies based on the structure of sport and society, individuals will be able to understand and improve sport experiences for themselves and others.

PET 3301 Motor Behavior (3) ED EDP
A study of the structure and function of the skeletal and muscular systems and of mechanical principles related to psycho-motor performance. Open to non-majors.

PET 3312 Biomechanics (3) ED EDP
PR: Admission to the Exercise Science Program or Permission of Instructor. This course will focus on the structure and function of the skeletal and muscular systems as well as the mechanical principles related to motor performance.

PET 3314 Professional Development Seminar (1) ED EDP
PR: Admission to the Exercise Science Program. This course will introduce the student to the exercise science field. Focus will be on professional conduct, job opportunities, organizations, certifications, and trends/issues. Students will develop skills to critique fitness/wellness information.

PET 3351 Exercise Physiology I (3) ED EDP
A study of the effects of physical activity on the body. Topics include acute and chronic adaptation of the cardiovascular, muscular, metabolic, hormonal, and energy systems to exercise. Open to non-majors.

PET 3353 Exercise Physiology II (3) ED EDP
PR: Admission to the Exercise Science Program or Permission of Instructor. This course is designed to explore physiological adjustments and adaptations that occur as the result of exercise. The main focus will be on exercise-induced changes in the metabolic, cardiovascular, respiratory, neuromuscular, and endocrine systems.

PET 3361 Nutrition for Fitness and Sport (3) ED EDP
PR: Admission to the Exercise Science Program. This course will address weight management/weight loss, common diets, dietary supplements, ergogenic aids, and eating disorders. Content will focus on nutrition and weight management guidelines established by the American College of Sports Medicine.

PET 3365 Physical Activity Epidemiology (3) ED EDP
PR: Admission to the Exercise Science Program. A presentation of the background and main concepts of epidemiology and discussion and summary of original research. Major topics include coronary artery disease, cerebrovascular disease, peripheral vascular disease, diabetes, arthritis, and COPD.

PET 3384 Exercise Testing and Prescription (3) ED EDP
PR: Admission to the Exercise Science Program. In this course students will become proficient in performing a variety of exercise tests and prescribe appropriate exercises for aerobic capacity, muscular strength and endurance, body composition, flexibility and other parameters of physical fitness.

PET 3404 Emergency Response and Planning (3) ED EDP
PR: Admission to the Exercise Science Program. Students will develop emergency response knowledge and skills through ARC first aid emergency response, CPR/AED certifications and will prospectively assess, develop, and implement a plan of response for emergency situations in fitness/wellness centers.

PET 3421 Curriculum and Instruction in Physical Education (3) ED EDP
Physical Education majors only. Development of knowledge and skills related to the instruction process of physical education. Preparation of materials and planning instruction.

PET 3441 Instructional Design and Content: Middle School Physical Education (3) ED EDP
Physical Education majors only. The development of physical education content and instructional practices for middle school students. The focus is upon matching appropriate content and learning experiences to the unique needs of the pre- and early adolescent learner.

PET 3617C Orthopaedic Physical Assessment I (Upper Extremity) (3) ED EDP
Athletic Training majors only. The study and practice of techniques used when assessing athletic injuries to the upper extremity, head and spine.

PET 3618C Orthopaedic Physical Assessment II (Lower Extremity) (3) ED EDP
Athletic Training majors only. The study and practice of techniques used when assessing athletic injuries to the lower extremity, hip, pelvis and gait.

PET 3621C Athletic Training Techniques (3) ED EDP
Athletic Training majors only. Theory and practical applications of therapeutic exercise and movement science. Includes
techniques in Feldenkrais movement patterns, aquatic exercise, lifting, resistance, plyometric training, synchronic testing, stability ball training, and a variety of common exercise equipment.

PET 3640 Adapted Physical Education (3) ED EDP
Physical Education majors only. A study of characteristics, programming needs and teaching of physical education for students with disabilities.

PET 3660 Athletic Training Administration and Policy (3) ED EDP
Athletic Training majors only. Analysis and application of organizational skills and administrative structure of the athletic training profession, including current theory about budget management, medical record keeping, drug testing, facility design and maintenance, legal aspects of sports medicine, athletic physical examination, medical ethics, current educational concepts, and administrative policy.

PET 3670L Clinical Instruction in Athletic Training I (3) ED EDP
Athletic Training majors only. Observation and performance of basic athletic training skills under the direct supervision of an NATABOC certified/state licensed athletic trainer. This course provides students with the opportunity to develop competence in a variety of introductory athletic training skills. Clinical experiences are obtained in the university’s sports medicine facilities and will be accompanied by a one-hour seminar each week.

PET 3671L Clinical Instruction in Athletic Training II (3) ED EDP
PR: PET 3670L. Athletic Training majors only. Continuation of clinical experiences utilizing new skills under the direction of an NATABOC certified/state licensed athletic trainer. This course provides students with the opportunity to develop competence in a variety of introductory and mid-level athletic training skills. Clinical experiences are obtained in the university’s sports medicine facilities and/or approved affiliates and will be accompanied by a one-hour seminar each week.

PET 3713 Theory and Practice of Teaching Group Exercise (3) ED EDP
PR: Admission to the Exercise Science Program. In developing group exercise leadership skills, students will learn how to apply principles of teaching safe and effective exercises designed to enhance cardiovascular endurance, muscular strength/endurance, and flexibility.

PET 3731 Selected Topics (1-3) ED DJ
Topics offered are selected to reflect student need and faculty interest.

PET 3940 Practicum in Fitness/Wellness (3) ED EDP
PR: Admission to the Exercise Science Program. This course will provide the initial field experience in a community fitness/wellness center serving general populations. Students will gain practical experience with regard to teaching group exercise and conducting fitness testing and prescription.

PET 4111 Strength and Conditioning (3) ED EDP
PR: Admission to the Exercise Science Program. This course will provide students with the information necessary for designing and implementing a successful strength and conditioning program for various test assessment and analysis of fitness and sport movement.

PET 4111 Trends and Tasks-Elementary Physical Education (3) ED EDP
Taken concurrently with PET 4142 Physical Education Internship: Elementary. Physical Education Majors only. Current trends are evaluated from a historical and philosophical perspective. Non-teaching tasks are identified as part of the professional role. Evaluate and continue personal-professional development plan developed in previous semesters.

PET 4142 Trends and Tasks - Secondary Physical Education (1) ED EDP
Taken concurrently with PET 4944 Physical Education Internship: Secondary. Physical Education Majors only. Current trends are evaluated from a historical and philosophical perspective. Non-teaching tasks are identified as part of the professional role. Evaluate and continue personal-professional development plan developed in previous semesters.

PET 4219 Exercise Psychology (3) ED EDP
PR: Admission to the Exercise Science Program. A presentation of the basic concepts related to exercise behavior. The content will include topics related to the psychosocial dimensions of exercise behavior including participation, motivation, and adherence. Theoretical models will also be presented.

PET 4304 Principles and Issues in Coaching (3) ED EDP
Physical Education majors only. The application of principles from philosophy, psychology, sociology, and physiology to competitive athletics and coaching.

PET 4353 Exercise Physiology II (3) ED EDP
PR: PET 3351. A study of Exercise Physiology focusing on the adult. Includes specific populations such as the obese, heart patients, athletes, elderly, and high performance athletes. Open to non-majors.

PET 4384 Health-Fitness Appraisal & Exercise Prescription (3) ED EDP
PR: PET 3351. Techniques in conducting health-fitness test and exercise prescription for adults. Includes cardiovascular strength, flexibility, body composition, health risk testing, exercise prescribing, and monitoring. Open to non-majors.

PET 4401 Class Management, Safety, Ethics, Law, and Organization and Administration of Physical Education (3) ED EDP
Physical Education majors only. This course will examine the various classroom management approaches, professional ethics, school law, safety, and the organization and administration of physical education programs.

PET 4402 Planning and Evaluating Fitness/Wellness Programs (3) ED EDP
PR: Admission to the Exercise Science Program. This course will focus on the design of high quality fitness/wellness programs in worksite and other settings. Students will learn and apply the major components of program planning – needs assessment, development, implementation, and evaluation.

PET 4406 Individualized Fitness/Wellness Programming (3) ED EDP
PR: Admission to the Exercise Science Program. In this course students will learn how to assess, evaluate, and design safe and effective programs for individual clients. Students will also learn how to incorporate appropriate activities for specialized clients or populations.

PET 4412 Administration of Fitness/Wellness Centers (3) ED EDP
PR: Admission to the Exercise Science Program. This course will examine management issues in the areas of human resources, budgeting, marketing, legal liability, and risk management. Students will develop skills to manage safe/effective programs and services in various fitness/wellness settings.

PET 4432 Instructional Design and Content: Physical Education Elementary (3) ED EDP
Physical Education majors only. This is the first in a two-course sequence in which students study movement forms and instructional processes suitable for elementary age students. Majors only.

PET 4433 Instructional Design and Content: Physical Education Elementary II (3) ED EDP
Physical Education majors only. This course prepares students to select, plan, conduct complex movement experiences for students K-6.

PET 4442 Instructional Design and Content: Physical Education Secondary (3) ED EDP
Physical Education majors only. Development of knowledge and skills related to the teaching of selected movement activities such as team sports, gymnastics, and physical fitness. Focus is on understanding mechanical principles utilized within those activities as well as on instructional progression and the preparation of materials for instruction at the secondary school level.

PET 4550 Clinical Exercise Testing and Prescription (3) ED EDP
PR: Admission to the Exercise Science Program. A presentation of concepts related to the clinical aspects of fitness assessment and exercise programming. Clinical conditions that will be considered include: cardiovascular disease, pulmonary disease, metabolic disease, arthritis, and geriatrics.

PET 4625 Advanced Athletic Training (3) ED EDP
PR: PET 3617C and PET 3618C. Athletic Training majors only. Advanced techniques in athletic training including orthopedic assessment, casting and bandaging, and other advanced topics.

PET 4627 General Medical Conditions in the Athlete (3) ED EDP
PR: PET 3617C and PET 3618C. Advanced theory of pathology in injury, management of tissue and bone healing environments, disease, internal illness and injury and other general medical conditions. Issues related to radiology and pharmacology are also discussed.

PET 4632C Therapeutic Modalities (3) ED EDP
Athletic Training majors only. Theoretical and practical applications of therapeutic modalities in the management of injury and illness.

PET 4633C Therapeutic Rehabilitation (3) ED EDP
Athletic Training majors only. Theories and applications methods of comprehensive therapeutic treatment and rehabilitation
programs for injuries commonly sustained by the physically

PET 4673L Clinical Practice in Athletic Training II (3) ED EDP
Athletic Training majors only. Continuation of clinical experience utilizing new skills under the direction of an NATABOC certified/ state licensed athletic trainer accompanied by a one-hour seminar each week. This course provides students with the opportunity to develop competence in a variety of mid-level and advanced athletic training skills. Students may be assigned to a USF athletic team and/or one or more off-campus clinical affiliations. Students at this level will develop instruction skills by acting as peer-supervisors for level I and II students.

PET 4672L Clinical Practice in Athletic Training (3) ED EDP
Athletic Training majors only. Continuation of clinical experience utilizing new skills under the direction of an NATABOC certified/ state licensed athletic trainer accompanied by a one-hour seminar each week. This course provides students with the opportunity to develop competence in a variety of mid-level and advanced athletic training skills. Students may be assigned to a USF athletic team and/or one or more off-campus clinical affiliations. Students at this level will develop instruction skills by acting as peer-supervisors for level I and II students.

PET 4905 Independent Study: Professional Physical Education (1-4) ED EDP
PR: DPR. S/U only. Specialized independent study determined by the student's needs and interests.

PET 4933 Seminar in Sports Medicine 6A LW (3) ED EDP
PR: PET 3617C and PET 3618C. The advanced study, writing, and discussion of topics and issues related to the field of athletic training. Emphasis is on professional preparation, credentialing, governance, ethics, and scope of practice. Employment issues will also be studied.

PET 4935 Case Studies in Athletic Health Care (3) ED EDP
Athletic Training web-based majors only. Capstone course intended to provide a uniting opportunity to utilize concepts, principles and skills learned from other athletic training courses.

PET 4941 Internship in Fitness/Wellness (9) ED EDP
PR: Admission to the Exercise Science Program. This course will provide the final field experience in a community fitness/wellness center serving both general and special populations. Practical experiences will focus on all aspects of program development, delivery, and management.

PET 4942 Physical Education Pre-Internship: Elementary (3) ED EDP
PR: CC. A part-time internship in elementary school physical education. Focus on the nature of the total elementary school curriculum, characteristics of students, and application of appropriate content and instructional competencies.

PET 4944 Physical Education Pre-Internship: Secondary (3) ED EDP
CC. A part-time internship in middle or high school level physical education with focus on the relationship of physical education to the needs of the adolescent and the implementation of appropriate content and methodology.

PET 4946 Internship in Physical Education: Elementary (6) ED EDP
CC. A full-time internship in the elementary school in which the student undertakes the full range of teaching responsibilities in elementary physical education.

PET 4947 Internship in Physical Education: Secondary (6) ED EDP
S/U only. Physical Education majors only. A full-day internship in middle, junior or senior high school physical education programs with focus on the implementation of appropriate content and methodology to meet the needs of secondary students.

PGY 2110C Color Photography (3) VP ART
Development of knowledge and skills of color photography for publication and presentation. Emphasis is on the use of training procedures and negative color materials in their application to the media.

PGY 2401C Beginning Photography (3) VP ART
Introduction to the expressive possibilities of photographic media. Projects and assignments will introduce students to both traditional and experimental ways of working with light-sensitive materials with an emphasis on the interdependence of form, technique, and concept. The course will also provide an overview of significant trends and directions in contemporary art photography.

PGY 3001 Photography in American Culture (3) AS AMS
A survey of photography as an art and a craft in America since the mid-nineteenth century. Attention devoted to technological innovations, leading personalities, major movements, and memorable icons. Open to majors and non-majors.

PGY 3410C Intermediate Photography (3) VP ART
PR: ART 2201C, ART 2203C, ART 2301C, ART 3310C, ARH 2050, ARH 2051, PGY 2401C. A mid level course expanding the student’s visual and technical skills while establishing the beginning of a personal artistic direction. Repeatable up to 9 hours.

PGY 3610C Photojournalism I (3) AS COM

PGY 3620 Photojournalism II (3) AS COM
PR: PGY 3610C. Laboratory required. Advanced process and practice of photography for publication.

PGY 3801C Digital Media I (3) VP ART
Restricted to majors. This course builds upon the concepts introduced in Introduction to Multimedia Systems and focuses upon digital photographic creation and editing.

PGY 3930C Special Topics: Photography (3) VP ART
PR: PGY 3410C. A mid-level course expanding the student’s visual and technical skills while establishing the beginning of a personal artistic direction by exposing the student to new ideas, technical skills and genres, including, but not limited to: color photography, digital photography, non-silver and documentary photography. Repeatable up to 9 hours.

PGY 4420C Advanced Photography (3) VP ART
PR: PGY 3410C (3 cr.), PGY 3930C (6 cr.) and a 3.25 major GPA. Majors only. Continued problems in photography. May be repeated.

PGY 4802C Digital Media II (3) VP ART
Restricted to majors. This course builds upon the concepts introduced in Digital Media I and focuses upon digital photographic, web and digital video creation.

PGY 5425C Art Photography III (4) VP ART
PR: Ci. Advanced work in photography and related media leading to development of personal/expressive statements.

PHC 4542 Stress, Health and College Life (3) PH CFH
The purpose of this course is to examine the relationship between stress, as a multi-casual concept, health and disease. Focus areas include: the historical evolution and current theories of stress as they relate to types of stressors, physiological reactions and predisposition to disease, and techniques related to the recognition and prevention of an unhealthy level of stress.

PHH 2000 Introduction to Philosophy 6A HP (3) AS PHI
An introduction to selected philosophical problems and traditions.

PHH 3062 History of Western Philosophy: Ancient Philosophy (3) AS PHI
A survey of Western philosophy from the Pre-Socratics to Late Antiquity.

PHH 3400 History of Philosophy: Modern (3) AS PHI
A survey of Western philosophy from the end of the Middle Ages to the nineteenth century.

PHH 4440 Continental Philosophy (3) AS PHI
A study of developments in post-Kantian European philosophy.

PHH 4600 Contemporary Philosophy 6A MW (3) AS PHI
Selected schools of twentieth century thought such as idealism, positivism, pragmatism, realism, and existentialism.

PHH 4700 American Philosophy 6A MW (3) AS PHI
Major traditions in American thought, Puritanism, the Enlightenment, Transcendentalism, Idealism, Pragmatism, and Analytic Philosophy in relation to American culture.

PHH 4820 Chinese Philosophy (3) AS PHI
A survey of Confucianism, Taoism and other aspects of Chinese thought. The course is available to both majors and non-majors and does not have laboratory sections associated with it.

PHI 1103 Critical Thinking SS (3) AS PHI
Methods of thinking that lead to reliable conclusions, with emphasis on concepts and principles in ordinary language and the sciences.

PHI 1401 Science and Society 6A NS SS (3) AS PHI
This class teaches students to become a better “Scientific Citizen,” i.e. to be able to better understand and participate in the process of science by making choices about the nature and social world that matter to us as a society.

PHI 1600 Introduction to Ethics HP SS (3) AS PHI
A study of ethical theories, concepts, problems and methods.

PHI 2101 Logic I (3) AS PHI
An elementary study of prepositional, predicate, class and syllogistic logic with some attention to basic problems of logical theory.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI 2630</td>
<td>Contemporary Moral Issues SS (3) AS PHI</td>
<td></td>
<td>Open to all students. A study of contemporary moral issues concerning racism, sex, sexism, abortion, poverty, crime, war, suicide, and human rights in general.</td>
</tr>
<tr>
<td>PHI 2631</td>
<td>Ethics and Business SS (3) AS PHI</td>
<td></td>
<td>An application of traditional ethical theories to contemporary problems in business.</td>
</tr>
<tr>
<td>PHI 3404</td>
<td>Philosophy of Science (3) AS PHI</td>
<td></td>
<td>How is science different from other methods of inquiry about the world? What distinguishes science from pseudoscience? From religion? How do we test scientific theories? What are the factors that lead scientists to accept a theory?</td>
</tr>
<tr>
<td>PHI 3633</td>
<td>Biomedical Ethics (3) AS PHI</td>
<td></td>
<td>The course will focus on the ethical issues arising from advances in medical practice, delivery of health care, and scientific research.</td>
</tr>
<tr>
<td>PHI 3636</td>
<td>Professional Ethics (3) AS PHI</td>
<td></td>
<td>An examination of the ethical problems that professionals will face in the complex, global society of the next few decades: confidentiality, divided loyalty, racism/sexism, etc.</td>
</tr>
<tr>
<td>PHI 3640</td>
<td>Environmental Ethics SS (3) AS PHI</td>
<td></td>
<td>A study of alternative theories of environmental ethics, including the application of these theories to contemporary environmental problems, such as pollution, resource depletion, species extinction, and land use.</td>
</tr>
<tr>
<td>PHI 3700</td>
<td>Philosophy of Religion 6A SS (3) AS PHI</td>
<td></td>
<td>Analysis of religious experience and activity and examination of principal religious ideas in light of modern philosophy.</td>
</tr>
<tr>
<td>PHI 3905</td>
<td>Directed Study (1-4) AS PHI</td>
<td></td>
<td>PR: CI. Approval slip from instructor required. Individual study directed by a faculty member.</td>
</tr>
<tr>
<td>PHI 3930</td>
<td>Selected Topics (1-4) AS PHI</td>
<td></td>
<td>PR: CI. Selected topics according to the needs of the student.</td>
</tr>
<tr>
<td>PHI 4073</td>
<td>African Philosophy MW (3) AS PHI</td>
<td></td>
<td>A survey of African philosophical thought, featuring reflective comparisons of African and Western categories of thought.</td>
</tr>
<tr>
<td>PHI 4300</td>
<td>Theory of Knowledge 6A MW (3) AS PHI</td>
<td></td>
<td>An examination of human knowledge; its scope and limits, and an evaluation of evidence, criteria of truth, the nature of belief, conditions for meaningfulness, theories of perception, and a study of memory and sense perception in the four major fields of nature, history, personal experience, and the a priori.</td>
</tr>
<tr>
<td>PHI 4320</td>
<td>Philosophy of Mind 6A MW (3) AS PHI</td>
<td></td>
<td>A study of historical and current issues in philosophy of mind, including the nature and status of mind, mind/body dualism, the relationship of mind and body, the problems of other minds, the physical basis for intelligence.</td>
</tr>
<tr>
<td>PHI 4632</td>
<td>Feminist Ethics MW (3) AS PHI</td>
<td></td>
<td>A study of the varied approaches to moral reasoning taken by feminist ethical writers such as Wollstonecraft, Mill, Gilligan, Daly, Hoagland and others.</td>
</tr>
<tr>
<td>PHI 4670</td>
<td>Contemporary Ethical Theory (3) AS PHI</td>
<td></td>
<td>A survey of contemporary ethical theory, focusing both on the literature about the status of ethical theorizing—moral scepticism, moral nihilism, narrative ethics—and on specific types of theories—deontological theories, consequentialist theories, rights-based theories, virtue theories.</td>
</tr>
<tr>
<td>PHI 4800</td>
<td>Aesthetics 6A MW (3) AS PHI</td>
<td></td>
<td>A study of traditional and contemporary aesthetic theories with emphasis on creative process, the nature of the art work, the aesthetic response, expressiveness, form and content, as well as art and morality.</td>
</tr>
<tr>
<td>PHI 4905</td>
<td>Directed Study (1-4) AS PHI</td>
<td></td>
<td>PR: CI. Approval slip from instructor required. Individual study directed by a faculty member.</td>
</tr>
<tr>
<td>PHI 4930</td>
<td>Selected Topics (1-3) AS PHI</td>
<td></td>
<td>PR: CI. Approval slip from instructor required. Selected topics according to the needs of the senior students.</td>
</tr>
<tr>
<td>PHI 4938</td>
<td>Philosophy Capstone Seminar (3) AS PHI</td>
<td></td>
<td>PR: Junior or senior standing; declared philosophy major. Exit course for philosophy majors. Topics will vary at instructor’s discretion, but are expected to span conventional boundaries between the branches of philosophical inquiry.</td>
</tr>
<tr>
<td>PHI 5135</td>
<td>Symbolic Logic (3) AS PHI</td>
<td></td>
<td>PR: PHI 2100 or CI. Study of topics such as the following: Metatheory of propositional and predicate logic, related metamathematical results, alternative logics.</td>
</tr>
<tr>
<td>PHI 5225</td>
<td>Philosophy of Language (3) AS PHI</td>
<td></td>
<td>PR: Eight hours of philosophy, major in linguistics, or CI. An examination of semantically, syntactical, and functional theories of language with special attention given to the problems of meaning, linguistic reference, syntactical form, and the relations between scientific languages and ordinary linguistic usage. Seminar format.</td>
</tr>
<tr>
<td>PHI 5913</td>
<td>Research (1-4) AS PHI</td>
<td></td>
<td>PR: CI. Approval slip from instructor required. Individual research supervised by a faculty member.</td>
</tr>
<tr>
<td>PHI 5934</td>
<td>Selected Topics (1-3) AS PHI</td>
<td></td>
<td>PR: CI. Approval slip from instructor required. Selected topics according to the needs of the student.</td>
</tr>
<tr>
<td>PHM 3020</td>
<td>Philosophies of Love and Sex (3) AS PHI</td>
<td></td>
<td>Discussion of Philosophies of Love/Sex of Plato, Aristotle, Epicurus, Aquinas, Hume, Kant, Schopenhauer, Russell, Sartre, Marx, etc.</td>
</tr>
<tr>
<td>PHM 3100</td>
<td>Social Philosophy 6A SS HP (3) AS PHI</td>
<td></td>
<td>An analysis of rival theories of social order and their philosophical foundations.</td>
</tr>
<tr>
<td>PHM 3400</td>
<td>Introduction to Philosophy of Law (3) AS PHI</td>
<td></td>
<td>A study of the fundamental concepts of law from a philosophical standpoint including crime, justice, punishment, free speech, insanity.</td>
</tr>
<tr>
<td>PHM 4120</td>
<td>Major Black Thinkers MW (3) AS AFA</td>
<td></td>
<td>PR: Junior or Senior standing. Survey of major themes and issues in African/African-American intellectual and political thought with an emphasis on theories of nationalism. Works of individuals such as Martin Delany, Booker T. Washington, W. E. B. DuBois, Marcus Garvey, Malcolm X, and Angela Davis are considered.</td>
</tr>
<tr>
<td>PHM 4331</td>
<td>Modern Political Philosophy 6A MW (3) AS PHI</td>
<td></td>
<td>A survey of political philosophy from 1600 A.D. until 1900 A.D., including an examination of the ethical, metaphysical, and epistemological bases of these philosophies.</td>
</tr>
<tr>
<td>PHM 4340</td>
<td>Contemporary Political Philosophy 6A MW (3) AS PHI</td>
<td></td>
<td>A survey of political philosophy in the twentieth century, including an examination of the ethical, metaphysical and epistemological bases of these philosophies.</td>
</tr>
<tr>
<td>PHM 5125</td>
<td>Topics in Feminist Philosophy (3) AS PHI</td>
<td></td>
<td>A study of recent feminist philosophical approaches to epistemology, aesthetics and political philosophy. May also be taken for credit in Women’s Studies.</td>
</tr>
<tr>
<td>PHM 5126</td>
<td>Social Issues in Biomedical Ethics (3) AS PHI</td>
<td></td>
<td>An examination of the social and political issues arising from rapid changes in medicine and technology. Topics covered may include social issues related to the just distribution of health care, reproductive technologies, HIV and AIDS, eugenics, genetic testing, and maternal-fetal relations.</td>
</tr>
<tr>
<td>PHP 4386</td>
<td>Existentialism 6A HP (3) AS PHI</td>
<td></td>
<td>A study of the religious and atheistic existentialists and the bearing of their views on religion, ethics, metaphysics, and theory of knowledge.</td>
</tr>
<tr>
<td>PHP 4500</td>
<td>Plato 6A MW (3) AS PHI</td>
<td></td>
<td>The examination of Plato will include the dialogues Protagoras, Georgias, Meno, Republic.</td>
</tr>
<tr>
<td>PHP 4510</td>
<td>Kant (3) AS PHI</td>
<td></td>
<td>Lecture and discussion of Kant’s philosophy, especially the Critique of Pure Reason.</td>
</tr>
<tr>
<td>PHP 4740</td>
<td>The Rationalists 6A MW (3) AS PHI</td>
<td></td>
<td>A careful study of the metaphysics and epistemologies of Descartes, Spinoza, Leibniz, and Malebranche.</td>
</tr>
<tr>
<td>PHP 4745</td>
<td>The Empiricists 6A AS PHI</td>
<td></td>
<td>A careful study of the metaphysics and epistemologies of Locke, Berkeley, Hume, and Thomas Reid.</td>
</tr>
<tr>
<td>PHP 4784</td>
<td>Analytical Philosophy 6A AS PHI</td>
<td></td>
<td>A study of the method devoted to clarifying philosophical problems through analysis of the language in which these problems are stated.</td>
</tr>
<tr>
<td>PHP 4788</td>
<td>Philosophy of Marxism 6A MW (3) AS PHI</td>
<td></td>
<td>A critical survey of Marxist philosophy from Marx and Engels to Mao Tse-Tung and Herbert Marcuse. Hegelian foundations of Marxist philosophy analyzed in detail.</td>
</tr>
<tr>
<td>PHT 5021</td>
<td>Professional Issues I (2) ME PHT</td>
<td></td>
<td>Foundations of systems thinking, decision making, professional expression, responsibility, and accountability (including legal/ethical concepts), culture and argumentation for the roles of the physical therapist in administration, consultation, critical inquiry, education and patient/client management. Restricted to majors.</td>
</tr>
<tr>
<td>PHT 5022</td>
<td>Professional Issues II (1) PHT</td>
<td></td>
<td>An introduction to critical injury and educator roles and responsibilities; explores the concepts of decision-making, evaluation of research, theories of learning, research and clinical pathways. Restricted to majors.</td>
</tr>
</tbody>
</table>
PHT 5023 Professional Issues III (3) ME PHT
Focus on clinical, ethical, and professional responsibility and accountability of the physical therapist. Learners will further develop their abilities to make legal and ethical decisions. The class will examine state laws governing the practice of physical therapy and other health care services. Restricted to majors.

PHT 5171C Foundational Science I (3) ME PHT
Introduction to the peripheral neuromuscular, skeletal, integumentary, and circulatory systems in normal and pathological states. Includes the anatomy and physiology of bones, joints, skin, nerves, and blood vessels, as well as the response of these tissues to injury and their potential for healing. Restricted to majors.

PHT 5172C Foundational Science II (1) ME PHT
Emphasis on physiology of the peripheral sensorimotor and cardiopulmonary systems. Restricted to majors.

PHT 5173C Foundational Science III (2) ME PHT
Introduction to selected physical therapy interventions, obtaining a patient history, and conducting a systems screen. Restricted to majors.

PHT 5174 Movement Science I (2) ME PHT
A basic introduction to movement science and its foundational principles from four different perspectives: biomechanics; kinesiology; exercise physiology; and motor control, learning and development. Restricted to majors. Repeatable for 2 cr.

PHT 5184 Movement Science II (3) ME PHT
A basic introduction to movement science principles with emphasis on biomechanics, kinesiology, functional anatomy, exercise physiology, histopathology, motor control and connective tissue properties. Restricted to majors. Repeatable for 3 cr.

PHT 5271 Patient/Client Management I (ME PHT)
Foundational principles of histology, pathology, histophatology, applied biomechanics, pharmacology and clinical medicine are introduced and applied to the physical therapy management of individuals with musculoskeletal disorders involving the limbs. Restricted to majors.

PHT 5272 Patient/Client Management II (2) ME PHT
Application of principles of patient/client management to patients with cardiopulmonary disease or dysfunction and diabetes in order to identify and write plans of care for related movement dysfunction. Restricted to majors.

PHT 5273 Patient/Client Management III (3) ME PHT
Learning to apply principles of patient/client management to patients with progressive, non-progressive diseases and injuries of the nervous system. Restricted to majors.

PHT 5275C Physical Therapy Science I (4) ME PHT
Introduction to physical therapy skills in examination, evaluation, and diagnosis for clients with uncomplicated musculoskeletal impairments involving the extremities. Emphasis on obtaining a history and performing physical therapy tests and measures leading to a differential diagnosis by application of principles of movement. Restricted to majors.

PHT 5276C Physical Therapy Science II (4) ME PHT
Introduction to selected physical therapy interventions, obtaining a patient history, and conducting a systems screen. Restricted to majors.

PHT 5277C Physical Therapy Science III (3) ME PHT
Examination, evaluation, diagnosis, and intervention for movement-related problems secondary to impairments of the nervous system. Contemporary theories of motor development, motor learning and motor control will be introduced. Student knowledge will be demonstrated with clinical problem-solving scenarios. Restricted to majors.

PHT 5283C Physical Therapy Procedures (3) ME PHT
Introduction to selected physical therapy interventions, obtaining a patient history, and conducting a systems screen. Restricted to majors. Repeatable for 1 credit.

PHT 5316 Medical Management I (1) ME PHT
Introduction to medical diagnostics, pharmacological principles, and common orthopedic surgical procedures as components of medical management including repair of bone and soft tissue. Restricted to majors. Repeatable for 1 credit.

PHT 5380 Medical Management II (1) ME PHT
PR: PHT 5316 Seminar on the medical and surgical management; epidemiology, pathophysiology; pharmacology of injuries and diseases of the cardiopulmonary system including repair and regeneration. Restricted to majors. Repeatable for 1 credit.

PHT 5822 Clinical Education I (3) ME PHT
Focus on initial clinical experience for the development of patient care skills. The course is graded Satisfactory/Unsatisfactory. Restricted to majors.

PHT 5906 Directed Independent Study (1-10) ME PHT
Directed independent study, content to be decided. Restricted to majors.

PHT 5934 Special Topics I (1-10) ME PHT
Exploration of physical therapy practice issues. Topics may vary including: seminars and/or lab course. Restricted to majors. Not repeatable for credit.

PHT 5960 Clinical Proficiency and Problem Solving I (1) ME PHT
Practicum for patient/client management of individuals with musculoskeletal related movement disorders complemented by direct patient care learning. Restricted to majors. Repeatable for 1 credit hour.

PHT 5971 Clinical Proficiency and Problem Solving II (1) ME PHT
PR: PHT 5960 Practicum for the synthesis of skills, knowledge, and values for management of individuals with cardiopulmonary and endocrine related movement disorders complemented by direct patient care learning. Restricted to majors. Repeatable for 1 credit hour.

PHY 2048 General Physics I NS (3) AS PHY
No credit for Physics or Mathematics majors. A qualitative, non-mathematical investigation of physics, emphasizing its influence on life today.

PHY 2048L General Physics I Laboratory (1) AS PHY
PR: MAC 2281 or MAC 2311. Must be taken concurrently with lab and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2054 and PHY 2048L courses. First semester of a two semester sequence of general physics and laboratory for physics majors and engineering students.

PHY 2049 General Physics II NS (3) AS PHY
PR: MAC 2282 or MAC 2312, PHY 2048, PHY 2048L. May be taken concurrently with lecture and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2054L and PHY 2049L courses. Second semester of a two semester sequence of general physics and laboratory for physics majors and engineering students.

PHY 2049L General Physics II Laboratory (1) AS PHY
PR: MAC 2282 or MAC 2312, PHY 2048, PHY 2048L. Must be taken concurrently with lecture and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2054L and PHY 2049L courses. Second semester of a two semester sequence of general physics and laboratory for physics majors and engineering students.

PHY 2053 General Physics I NS (3) AS PHY
PR: MAC 1140 and MAC 1114, or MAC 1147. Must be taken concurrently with lab and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2053 and PHY 2048 courses. First semester of a two semester sequence of non-calculus-based general physics (mechanics, wave motion, sound, electricity, magnetism, optics, modern physics) for science students.

PHY 2053L General Physics I Laboratory (1) AS PHY
Must be taken concurrently with lecture and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2053L and PHY 2048L courses. First semester of a two semester sequence of non-calculus-based general physics (mechanics, heat, wave motion, sound, electricity, magnetism, optics, modern physics) laboratory for science students.

PHY 2054 General Physics II NS (3) AS PHY
PR: PHY 2053, PHY 2053L. Must be taken concurrently with lab and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2054 and PHY 2049 courses. Second semester of non-calculus-based general physics for science students.

PHY 2054L General Physics II Laboratory (1) AS PHY
PR: PHY 2053, PHY 2053L. Must be taken concurrently with lecture and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2054L and PHY 2049L courses. Second semester of general physics lab for science students.
PHY 3101 Modern Physics (3) AS PHY

PHY 3221 Mechanics in General (3) AS PHY
PR: PHY 2048. CR: MAC 2283 or MAC 2313. First semester of a two-semester sequence. Review of vector algebra and vector calculus. Dynamics of single particles and systems of particles; central forces; introduction about an experimental and virtual work.

PHY 3323 Electricity and Magnetism I (3) AS PHY
PR: PHY 2049, MAC 2283 or MAC 2313. Electrostatic fields and potentials, dielectrics, classical conductivity, RC circuits, Fourier and finite element methods. First semester of sequence PHY 3323, PHY 4324.

PHY 3424 Optics (4) AS PHY
PR: PHY 2049; CR: MAC 2283 or MAC 2313. Reflection, refraction, dispersion, interference, diffraction, polarization, and laboratory.

PHY 3822L Intermediate Laboratory (3) AS PHY
PR: PHY 2049 or equivalent; CR: PHY 3101. Experiments in modern physics, including the areas of atomic, nuclear, solid state and wave phenomena.

PHY 4031 Great Themes in Physics 6A MW (3) AS PHY

PHY 4222 Mechanics II (3) AS PHY
PR: PHY 3221; CR: MAP 2302. Continuation of PHY 3221. Coupled oscillators and normal modes; moving coordinate systems; Lagrange’s and Hamilton’s equations; inertia tensor; general rotation of rigid bodies.

PHY 4324 Electricity and Magnetism II (3) AS PHY
PR: PHY 3323. Introduction to special relativity, magnetic fields and potentials, magnetic materials, RL and RLC circuits, Maxwell’s equations and applications.

PHY 4523 Statistical Physics (3) AS PHY
PR: PHY 3101, senior status. Statistical approach to thermodynamics and kinetic theory and introduction to statistical mechanics.

PHY 4604 Introduction to Quantum Mechanics (3) AS PHY
PR: PHY 3101, or CI. Basic concepts of quantum mechanics with applications in atomic, nuclear, and condensed matter Physics.

PHY 474AC Introduction to Electronics and Test Instrumentation (3) AS PHY
PR: General Physics or CI. Introduces the fundamentals of analog and digital electronics used in measurements and instrumentation. Weekly labs give hands-on experience in breadboarding electronic circuits and using test instrumentation (oscilloscopes, etc.).

PHY 4823L Advanced Laboratory (3) AS PHY
PR: PHY 3822L. Experimental work primarily related to modern physics. Emphasis on experimental techniques used in current research.

PHY 4905 Independent Study (1-3) AS PHY
PR: CI. S/U only. Specialized, independent study determined by the student's need and interest. The written contract required by the College of Arts and Sciences specifies the regulations governing independent study.

PHY 4910 Undergraduate Research (1-4) AS PHY
PR: Senior or advanced junior standing and CC. S/U only. An individual investigation in the laboratory or library or both, under the supervision of the instructor. Credit hours and other contractual terms, are to be determined by student/instructor agreement.

PHY 4930 Undergraduate Seminar (1) AS PHY
PR: Senior or advanced junior standing or CC. S/U only. All undergraduate physics majors must enroll in this course at least once. Regular attendance is required. This course introduces students to laboratory areas in the Physics Department.

PHY 4936 Selected Topics in Physics (1-4) AS PHY
PR: Senior or advanced junior standing and CC. Each topic is a course in directed study under the supervision of a faculty member.

PHY 5720C Electronics for Research (3) AS PHY
A rigorous introduction to the fundamentals of analog and digital electronics. Theoretical circuit analysis and weekly labs introduce practical use of diodes, transistors, analog and digital ICs, breadboarding techniques and electronics test instrumentation. Spring Semester.

PHY 5937 Selected Topics in Physics (1-4) AS PHY
PR: Senior or advanced standing and CC. Each topic is a course in directed study under the supervision of a faculty member.

PHZ 2102 Problems in General Physics I (1) AS PHY
CR: PHY 2048 or PHY 2053. First semester of a two-semester sequence on solving problems in General Physics I. A course designed to be taken with the lecture course and to help students with developing problem-solving skills.

PHZ 2103 Problems in General Physics II (1) AS PHY
CR: PHY 2049 or PHY 2054. Second semester of a two-semester sequence on solving problems in General Physics II. A course designed to be taken with the lecture course and to help students with developing problem-solving skills.

PHZ 415C Computational Physics (3) AS PHY
Introduction to computer applications in physics. Emphasis on numerical modeling and simulation of physics problems using linear algebra, differential equations and Monte Carlo methods. No prior programming experience required.

PHZ 4434 Materials Physics NS (3) AS PHY
PR: PHY 2049, PHY 2048, PHY 3101. The physics and physical properties of materials. Strong emphasis is on the underlying physics of materials. Particular topics covered include crystal structure, phase, and electrical, thermal, optical, and magnetic properties of materials.

PHZ 4702 Applications of Physics to Biology and Medicine I (4) AS PHY
PR: PHY-2054, PHY-2054L or PHY-2049, PHY 2049L. The first semester of a two-semester sequence, to discuss the applications of the physical concepts introduced in the General Physics sequence to biological systems and for medical applications. Restricted to non-majors.

PHZ 4703 Applications of Physics to Biology and Medicine II (4) AS PHY
PR: PHY-2054, PHY-2054L or PHY-2049, PHY 2049L; PHY 2053 or CI. The second semester of a two-semester sequence, to discuss the applications of the physical concepts introduced in the General Physics sequence to biological systems and for medical applications. Restricted to non-majors.

PHZ 5115 Methods of Theoretical Physics I (3) AS PHY
PR: MAP 2302 or CI. Applications of mathematical techniques to classical and modern physics. Various spaces including Hilbert space, orthogonal functions, generalized functions, Fourier analysis, transform calculus, and variational calculus.

PHZ 5116 Methods of Theoretical Physics II (3) AS PHY
PR: MAP 2302 or CI. Applications of mathematical techniques to classical and modern physics. Selected topics in complex analysis, differential and integral equations, numerical methods, and probability theory.

PHZ 515C Computational Physics I (3) AS PHY
PR: CGS 7505 or CI. C programming applied to real science and engineering problems. Data analysis, numerical algorithms, modeling, parallel computation. Subjects selected from current research, may include numerical methods, quantum magnetism, chaos, finance, materials science.

PHZ 5304 Nuclear Physics (3) AS PHY
PR: PHY 4604 or CI. Nuclear forces, nuclear models, nuclear structure, decay, nuclear reactions, and high energy physics.

PHZ 5405 Solid State Physics I (3) AS PHY
PR: PHY 3101, MAP 2302, CI. Crystal structure, x-ray and electron diffraction, mechanical and thermal properties of solids, electrical and magnetic properties of metals, band theory of metals, insulators, and semiconductors. First semester of sequence PHZ 5405, PHZ 6426.

POL 1120 Beginning Polish I (4) AS WLE
CR: POL 1120L. This course features all four major skills: listening, reading, speaking, and writing. Grammar exercises, dictation, readings and vocabulary-building are central in this first course. Knowledge of Russian can help. S/U available.

POL 112L Beginning Polish II Laboratory (1) AS WLE
CR: POL 1120L. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

POL 1121 Beginning Polish II (4) AS WLE
PR: POL 1120 or equivalent. CR: POL 1121L. This course combines the four basic skills of POL 1120, with continued emphasis on structures, dialogues, readings, dictation, and vocabulary-building. Knowledge of Russian can help. S/U available.

POL 1122 Beginning Polish II Laboratory (1) AS WLE
CR: POL 1121L. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.
POL 4905 Directed Study (1-5) AS WLE
Departmental approval required. S/U only. Permits study options in Polish not available in regularly scheduled curriculum at departmental discretion.

POR 1120 Beginning Portuguese I (4) AS WLE
CR: POR 1120L. Development of basic skills in listening and reading comprehension, speaking and writing of Brazilian Portuguese.

POR 1120L Beginning Portuguese I Laboratory (1) AS WLE
CR: POR 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

POR 1121 Beginning Portuguese II (4) AS WLE
CR: POR 1120 or equivalent. CR: POR 1121L. Continued development of basic skills in listening and reading comprehension, speaking and writing of Brazilian Portuguese.

POR 1121L Beginning Portuguese II Laboratory (1) AS WLE
CR: POR 1121. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

POR 2201 Intermediate Portuguese II (3) AS WLE
For language students who intend to attain basic proficiency.

POR 2220 Intermediate Portuguese I (3) AS WLE
CR: POR 2201. Continuous development of skills (speaking, comprehension, reading, and writing) introduced in POR 1120 and POR 1121.

POS 2041 American National Government (3) AS POL
Analysis of basic principles and procedures of the American governmental system with emphasis on current issues and trends.

POS 2080 The American Political Tradition SS HP (3) AS POL
This course is an introductory survey of the historical developments and changes in American political institutions, processes, and thought.

POS 2112 State and Local Government and Politics (3) AS POL
Analysis of the structure and function of state and local governments, of the social and political influences that shape them, and of the dynamics of their administrative processes.

POS 3142 Introduction to Urban Politics and Government (3) AS POL
Governmental and political structures and processes as they function in urban areas, with special focus on municipalities and locally based public services.

POS 3173 Southern Politics (3) AS POL
Examines changes in electoral politics in the South, and the role of interest groups and the state and federal government in facilitating change.

POS 3182 Florida Politics and Government (3) AS POL
A study of Florida political culture, political parties and elections, the legislative, executive, and judicial systems, and policy patterns.

POS 3483 Judicial Process and Politics (3) AS POL
The organization, development, and functioning of American court systems and the causes and consequences of judicial behavior from an empirical perspective.

POS 3483 Political Parties and Interest Groups (3) AS POL
Analysis and understanding of role, functions, structure, and composition of such, and their impact on American governmental institutions.

POS 3691 Introduction to Law and Politics (3) AS POL
Nature of law, legal process, relationship to political life of constitutional law, administrative law, the judicial process, and private law.

POS 3697 Environmental Law (3) AS POL
Examines some of the major issues involving environmental law. Specially, the course provides a survey and analysis of statutes, both state and federal, regulating water, air, soil pollution, and resources conservation and recovery. It will also address questions pertaining to problems of implementation, interpretation, enforcement, and development of environmental laws.

POS 3713 Empirical Political Analysis (3) AS POL
Fundamentals of empirical political inquiry: systematic data collection and quantitative analysis techniques. Laboratory exercises using the computer are required.

POS 3931 Selected Topics (3) AS POL
Selected topics in political science with course content based upon student demand and instructor’s interest.

POS 4204 Political Behavior, Public Opinion, and Elections (3) AS POL
Analysis of economic and socio-psychological factors influencing mass and elite political behavior; voting behavior, public opinion, and political activism.

POS 4413 The American Presidency 6A (3) AS POL
The presidency as a political institution; analysis of powers; legislative, administrative, political, and foreign policy leadership; crisis management and decision making; White House staffing; limits on power.

POS 4424 The American Congress (3) AS POL
Organization, procedures, committee system, party leadership, relations with governmental and non-governmental organizations and agencies, oversight, decision-making processes, House/Senate comparisons.

POS 4614 Constitutional Law I (3) AS POL
PR: POS 2041. Leading social problems, principle institutions, and the scope of powers. Analysis of Supreme Court decisions, scholarly commentaries, and the writings of leading public figures.

POS 4624 Constitutional Law II (3) AS POL
PR: POS 2041. Analysis of Supreme Court decisions and scholarly commentaries on the constitutional rights of individuals.

POS 4693 Women and Law I (3) AS WST
Introduction to issues concerning the legal aspects of sex and sex-based discrimination as embodied in statutory and case law, focusing on constitutional and family law and reproductive freedom issues.

POS 4694 Women and Law II 6A MW (3) AS WST
PR: POS 4693 or CI. Legal position of women in American society and remediation available to challenge current laws and practices, with specific emphasis on employment and education issues as they relate to both women and men.

POS 4901 Independent Study (1-3) AS POL
PR: 3.0 average in Political Science and CI. S/U only. Specialized study determined by the student’s needs and interests.

POS 4910 Individual Research (1-3) AS POL
PR: 3.0 average in Political Science and CI. Investigation of some aspect of political science culminating in the preparation of an original research paper.

POS 4936 Senior Seminar (3) AS POL
PR: Senior standing and CI. An opportunity to work with others in a seminar format, exploring specialized topics.

POS 4941 Field Work (3-15) AS POL
PR: 3.0 average in Political Science and CI. Opportunity for students to obtain practical experience as aides to agencies of government and political parties.

POS 4970 Honor Thesis (3) AS POL
PR: Admission to Honor option. Writing of honor thesis under the direction of faculty member.

POS 5094 Issues in American National and State Government (3) AS POL
Selected topics of study in American government.

POS 5153 Issues in Urban Government and Politics (3) AS POL
Selected issues and topics in Urban Government and politics.

POS 5159 Urban Policy Analysis (3) AS PAD
Application of policy framework for urban government & policies. Examine forms of government and how policies such as economic development, law enforcement, community policing, neighborhood policies (with non-profit groups) can be analyzed.

POT 3003 Introduction to Political Theory (3) AS POL
Examines various kinds of theory used in political science for understanding political life: normative theory, empirical theory, historicism theory, analytical theory, and critical theory.

POT 3013 Classical Political Theory (3) AS POL
Analysis of basic ideas of Plato, Aristotle, Cicero, St. Thomas, and other leading pre-modern political philosophers.

POT 4054 Modern Political Theory (3) AS POL
Analysis of basic political ideas of Machiavelli, Hobbes, Locke, Rousseau, Burke, and other modern philosophers.

POT 4064 Contemporary Political Thought (3) AS POL
Examines various political views and political phenomena in the nineteenth and twentieth centuries. Diverse theoretical types and salient political phenomena will be presented.

POT 4109 Politics and Literature 6A LW (3) AS POL
Critical examination of the connections between politics and literature.

POT 4204 American Political Thought (3) AS POL
Examines political writings in the U.S. and responses to critical periods in history, beginning with the Founding Fathers, and culminating in recent contributions and understanding contemporary political problems and solutions.
### PSY 4931 Selected Topics: Seminar (3) AS PSY
Selected topics or thinkers in political theory.

### PSY 4932 Honors Seminar (3) AS PSY
Pr: PSY 3213 with a grade of C or better. Methods and findings of personality theories and an evaluation of constitutional, biosocial, and psychological determinants of personality.

### PSY 4933 Advanced Topics in Applied Behavior Analysis (4) AS PSY
Advanced seminar in the effective and ethical application of behavior analysis to human problems. Includes theoretical and conceptual issues; assessment and treatment procedures; legal, ethical and socio-cultural issues.

### PSY 4936 Selected Topics in Political Theory (3) AS POL
Selected topics or thinkers in political theory.

### PSY 4961 The Politics of Identity, Difference and Inequality (3) AS PSY
Advanced seminar in the effective and ethical application of behavior analysis to human problems. Includes theoretical and conceptual issues; assessment and treatment procedures; legal, ethical and socio-cultural issues.

### PUP 4002 Public Policy (3) AS POL
Examines the formation and implementation of public policy in areas such as the economy, health, etc.

### PUR 4801 Advanced Public Relations (3) AS COM
An advanced level course in public relations practice. A project under the supervision of a faculty member coordinating the study.

### PUR 4802 Public Relations (3) AS COM
An analysis of the project and its development.

### PUR 5505 Introduction to Strategic Communication Theory and Practice (3) AS COM
An introduction to strategic communication theory and practice. A project under the supervision of a faculty member coordinating the study.

### QMB 2100 Business and Economic Statistics I (3) BA QMB
An introduction to probability; binomial and normal distributions; sampling distributions; estimation with confidence intervals; tests of hypotheses; control charts for quality improvement.
QMB 3200 Business And Economic Statistics II (3) BA QMB
PR: MAC 2233 or MAC 2242, QMB 2100. Simple linear regression and correlation; multiple regression and model building; forecasting models; analysis of variance; chi-square tests; nonparametric methods.

RCS 3530 Rehabilitation Counseling Issues in Alcoholism and Other Addictions (3) AS REH

RCS 4931 Selected Topics in Counseling Professions (3) AS REH
Provides an overview of counseling professions including current issues, standards of practice, and future trends. Will cover legal and ethical and professional issues.

RCS 5035 Rehabilitation Counseling: Concepts and Applications (3) AS REH
PR: CC. Introduction to the profession of Rehabilitation Counseling and current issues in the field. Coverage includes rehabilitation history, legislation, case management and related services for Americans with disabilities.

RCS 5080 Medical Aspects of Disability (3) AS REH
PR: RCS 7800 or CP. A survey of medical conditions and disabilities encountered by rehabilitation and mental health counselors. Examines the relationship of client handicaps, physical and mental, to rehabilitation and mental health programming.

RCS 5450 Substance Abuse I (3) AS REH

RCS 5780 Legal, Ethical, Professional Standards and Issues in Counseling (3) AS REH
PR: CC. An overview of all aspects of professional functioning including history, roles, organizational structures, ethics, standards and credentialing. Contemporary and developing issues in the field of professional counseling will also be addressed.

RCS 5905 Directed Studies (1-4) AS REH
PR: CI. Supervised rehabilitation studies under the direction of a faculty member.

REA 1206 Advanced Reading (3) US REA
This course focuses on a broad array of reading strategies to help students enhance comprehension skills as well as develop the fundamentals of critical analysis through the application of a strategic-reflective reading model.

REA 1305 Reading Lab (1) US REA
The focus is on the development of a systematic approach for increasing reading comprehension, rate, and vocabulary as well as adjusting rate and technique to adapt to a variety of materials and purposes. Open to all students; repeatable up to 3 credits.

REA 1605 Advanced Learning Systems (2) US REA
To explore the most recent advances in learning theory systems and then learn to apply that knowledge to understanding individual learning preferences, analyzing task demands, and intentionally selecting effective strategies for each learning challenge.

REA 2105 Critical Reading and Writing 6A (3) US REA
This course helps students develop the fundamentals of reflective and critical reading and on effective analytical writing utilizing multiple sources from various disciplines. The course meets the criteria for Gordon Rule writing requirements.

REA 2505 Vocabulary (3) AS ENG
A practical course in rapid vocabulary improvement for students in all areas. Stress is on words in context. Will not be counted toward the English major.

REA 2604 Strategic Learning (1) US REA
For students in academic difficulty, this course introduces students to advanced learning system used to understand individual learning preferences, analyze task demands, and then intentionally select effective strategies for each learning challenge.

REA 3030 Selected Topics (1-4) US REA
Topics will vary to meet the needs of students. Will not be counted toward the English major.

RED 4310 Reading and Learning to Read (3) ED EDE
PR: Admission to College of Education. This course will prepare pre-service teachers to understand the foundations of reading and the inherent learning principles to produce successful readers. The course focuses on appropriate instructional strategies to enhance reading development and reading across the curriculum.

RED 4511 Linking Literacy Assessment to Instruction (3) ED EDR
PR: RED 4310. This course will prepare pre-service teachers to use multiple assessment measures to assess and diagnose students’ strengths and needs in literacy learning. Based on individual student profiles, teachers will design instruction to enhance literacy development.

REE 3043 Real Estate Decision Making (3) BA FIN
PR: FIN 3043. Acquaints students with the range of knowledge required to engage in real estate decision-making in the United States. Integrates the institutional framework in which decisions are made, the elements of financial analysis, deal structuring and marketing, and the pricing, financing, and allocation of real property in the real estate market.

REE 4304 Real Estate Investment Analysis (3) BA FIN
PR: FIN 4504. A comprehensive study of the determinants of the market and financial feasibility of the real estate investment decision. The development of market and site analyses, theories of urban development patterns, and the role of taxation will be studied along with the application of analytical techniques for decision making.

REL 2210 Hebrew Bible/Old Testament (4) AS REL
An introduction to the critical study of the Hebrew Scriptures against the background of the ancient Near East, with attention to the history and religion of the Hebrew people.

REL 2240 Introduction to the New Testament (4) AS REL
An introduction to the critical study of the New Testament in the context of Christian beginnings in the first century A.D. This will include readings from the Apocrypha, other Gospels, and letters.

REL 2300 Introduction to World Religions HP SS (4) AS REL
This course is designed to give students an overview of the world’s major religions. Students are exposed to myths, rituals, history, primary beliefs, leaders, and other information used to understand religions. Open to majors and non-majors.

REL 2325 Contemporary World Religions and Cults, HP SS (4) AS REL
This course will explore the variety and diversity of religious traditions in our contemporary global context in order to understand the mutual interactions between religions and cultures. Emphasis will be placed on the role of religions in shaping human values which can either create or resolve social conflicts, and the impact these values can have on issues of race, ethnicity and religious diversity in a multicultural world.

REL 3000 Ancient Religions in Context (4) AS REL
Study of the religions in their cultural setting of the peoples of the Ancient Middle East and Mediterranean.

REL 3003 Introduction to Religious Studies (4) AS REL
Introduces students to the academic study of religion through an exploration of ideas and questions related to the character and function of holidays in contemporary America. Open to majors and non-majors.

REL 3111 Religion and Popular Culture SS HP (3) AS REL
An exploration and analysis of the relationship between religion and popular culture, which will include inquiry into the definition and meaning of both religion and popular culture, the impact of secularization on traditional religious systems, and the widely diverse expressions of religion in contemporary popular culture.

REL 3111 The Religious Quest in Contemporary Films 6A SS HP (4) AS REL
This course will use contemporary films such as Gandhi, Malcolm X, the Long Walk Home, the Color Purple, the Leap of Faith, the Chosen, and Grand Canyon, to explore the personal and social dimensions of religion in modern secular societies, with an emphasis on issues of racism, sexism and human liberation and reconciliation.

REL 3114 Comedy, Tragedy, and Religion 6A MW (3) AS REL
Examines the visions of life in comedy and tragedy, and relates both to Judaism, Christianity, and Zen Buddhism.

REL 3116 Religion and Contemporary American Holidays HP SS (3) AS REL
Introduces students to the academic study of religion through an exploration of issues and questions related to the character and function of holidays in contemporary America. Open to majors and non-majors.

REL 3171 Religion and Contemporary American Sports HP SS (3) AS REL
This course explores the function of sports in America. It covers the history of the sports; the status of American sports; and sports as religious events. This course is open to majors and nonmajors and is not repeatable for credit.

REL 3120 Religion in America (3) AS REL
To examine the movement from state church to pluralism in American religious institutions, the religious results of non-Protestant immigration; the Jewish factor; the effect of home missions and social concern programs upon American life; political entanglements and the concept of church/state separation.
REL 3131 New Religions in America (3) AS REL
A course designed to allow the student to survey the wide spectrum of contemporary sects and cults in America and learn what motivates their development.

REL 3132 Witchcraft and Paganism in America (3) AS REL
A study of contemporary witchcraft and paganism, including theories, methods, history, myths and symbols, beliefs, rituals and practices, believers, recruitment, socialization, and organizations.

REL 3140 Religion, Culture, and Society (3) AS REL
Introductory scholarly survey of religion in its complex relationship to culture and society, including definitions and theories of religion, research methods, becoming religious, social organization, and interconnections with other social institutions. Open to non majors.

REL 3145 Women and Religion 6A (3) AS REL
Analysis of the status and roles of women as compared to men in the Judeo-Christian tradition. Contemporary issues of feminist theology, and the controversies surrounding them.

REL 3146 Womanist Vision in Religion MW (3) AS REL
This course examines the works of Black Womanist writers in religion for their contributions to and insights into the phenomena of religion in America and the world.

REL 3170 Religion, Ethics and Society Through Film 6A SS HP (4) AS REL
An ethical analysis of contemporary social issues through contemporary films such as Wall Street and Crimes and Misdemeanors, drawing on religious narrative traditions from Eastern and Western cultures which have contributed to the development of an ethic of human dignity, human rights and human liberation after Auschwitz and Hiroshima.

REL 3191 Life After Death MW (4) AS REL
An exploration of ideas about life after death and its relations to this life in Judaism, Christianity, Islam, Hinduism, and Buddhism.

REL 3280 Biblical Archaeology MW (3) AS REL
An in depth examination of the archaeological data relating to the background and content of the Bible, including ancient customs, Biblical sites and cities. Biblical history, and material culture of the Biblical period. Special attention will also be given to excavation methods and interpretation of archaeological evidence.

REL 3303 Comparative Religion: Judaism and Islam MW (4) AS REL
This course is framed within the academic study of religion, and it does not concern itself with contemporary political differences in the Middle East. It treats as Islam the normative statements of the Qur'an and related traditions, and as Judaism the authoritative statements of the Torah, oral and written.

REL 3310 World Religions 6A HP SS (3) AS REL
World Religions gives students an overview of the major religions of the world from their formative periods up to modernity. Special attention is given to myths, rituals, history, beliefs, leaders and movements important in understanding religions.

REL 3318 Introduction to Chinese Religion AF HP SS (3) AS REL
The course is for majors and nonmajors, and may not be repeated for credit. The course introduces the history and present state of the religious thoughts and practices in mainland China and the geographical areas in which the Chinese language is spoken.

REL 3330 Religions of South Asia AF (3) AS REL
All religions of the world came to India and all became Indian. What is this “Indianess” which stems from Hinduism, Buddhism, Jainism and Sikhism, but extended itself to include Judaism, Christianity, Islam, Zoroastrianism and Bah’i. Readings from classical texts and modern literature.

REL 3363 Introduction to Islam HP AF (3) AS REL
This course introduces the basic elements of Islamic belief and practice, placing the rise of Islam in its historical context in the Middle East and stressing issues of diversity (including ethnicity and gender).

REL 3367 Islam in the Modern World 6A HP AF (3) AS REL
Examines the major developments in Islamic thought since the 13th century, with emphasis on the historical implications of the Islamic resurgence. Issues of diversity, gender, and social values will be stressed.

REL 3375 Issues in Caribbean Religions MW (3) AS REL
This course is a comparative study of major social and cultural issues in Caribbean religions mainly in Cuba, Haiti, Jamaica, and Trinidad, with emphasis on African-derived religions and Western and Eastern religious encounters.

REL 3380 Native American Religions (3) AS REL
A variety of multiplicity of perspectives, including anthropological, historical, social psychological, sociological, and philosophical.

REL 3391 In Search of the Goddess AF HP SS (3) AS REL
A study of the goddess religion/sacred feminine, from prehistory, to the pagan Near East and Mediterranean, Western monotheistic religions, pluralistic religions of the East, and revivals of Goddess spirituality in contemporary Europe/N. America.

REL 3420 Contemporary Religious Thought (3) AS REL
An exploration of the central ideas of recent religious thinkers: such as Gandhi, Martin Luther King, Jr., Elie Wiesel, Thich Nhat Hanh, Dorothy Soelle, Howard Thurman, Thomas Merton and others.

REL 3465 Religion and the Meaning of Life 6A MW (3) AS REL
What is the meaning of life? An exploration of answers to this question in Eastern and Western religions, and in humanistic philosophies of life.

REL 3500 History of Christianity 6A HP (4) AS REL
Historical development of Western Christianity, its ideas and institutions, from the first century to the rise of religious modernism in the 19th century.

REL 3561 Roman Catholicism 6A MW (3) AS REL
An examination of the history, doctrine, and ethics of the Roman Catholic Church.

REL 3602 Classics of Judaism 6A MW (3) AS REL
PR: One course in Religious Studies. How to read the principal documents of Judaism beyond the Old Testament, particularly the Mishnah, Talmud, Midrash, Tanakh, human dignity, and values.

REL 3607 Introduction to Judaism 6A SS HP AF (3) AS REL
An introduction to Judaism: its religious tenets; its codes of ethics; its rites and customs. This course is intended as a description of what it means to be a Jew.

REL 3611 History of Judaism 4 (A) AS REL
A study of the evolution of the religion of ancient Israel from the Exodus to the end of the second century of our era, seen against the backdrop of its historical, geographical, political, social and spiritual setting.

REL 3613 Modern Judaism 6A MW LW (3) AS REL
A study of Jewish life in the West since 1789, emphasizing Jewish beliefs, practices, and institutions.

REL 3801 History of Writing (2) AS REL
Study, in reasonable detail, of the history and evolution of writing within its societal context. We will stress the development of writing in Mesopotamia, Egypt, and the Mediterranean World, looking at the transition from oral to written literature and its impact on religion.

REL 3831 Directed Readings (1-4) AS REL
PR: CI. Individual guidance in concentrated reading on a selected topic.

REL 3936 Selected Topics (1-4) AS REL
Info regarding reading appropriate to students’ needs.

REL 4113 The Hero and Religion MW 6A (3) AS REL
A study of the way in which embedded religious models help to fashion the representation of an heroic protagonist. The focus of the course will be on the relationship between the hero and the “other,” as differentiated by race, gender, ethnicity, or merely inner being.

REL 4133 Mormonism in America 6A MW (3) AS REL
A study of Mormonism in America as an example of a new religion. Includes the study of history, myths and symbols, texts, beliefs, rituals and practices, believers, recruitment, socialization, and organizations.

REL 4161 Religion, Technology and Society (3) AS REL
An exploration of the way in which religion and technology have interacted in Western civilization so as to both express and transform human values and identity. Special emphasis will be given to the value questions raised by modern technology.

REL 4171 Contemporary Christian Ethics MW 6A MW (4) AS REL
PR: Jr. standing or CI. A survey of representative approaches to contemporary Christian ethics and their application to a number of ethical issues peculiar to contemporary personal and societal life in a pluralistic society, with an emphasis on issues of race and gender and of violence and non-violence.

REL 4177 Comparative Religious Ethics 6A MW LW (4) AS REL
A study of ethical issues peculiar to personal and social life in contemporary films such as Wall Street and Crimes and Misdemeanors, with an emphasis on the role of religion in the evolution of this life in Judaism, Christianity, Islam, Hinduism, and Buddhism.

REL 4181 Religion and the Meaning of Life MW (4) AS REL
What is the meaning of life? An exploration of answers to this question in Eastern and Western religions, and in humanistic philosophies of life.

REL 4198 In Search of the Goddess MW (4) AS REL
A study of the goddess religion/sacred feminine, from prehistory, to the pagan Near East and Mediterranean, Western monotheistic religions, pluralistic religions of the East, and revivals of Goddess spirituality in contemporary Europe/N. America.

REL 4230 Contemporary Religious Thought (MW) (3) AS REL
An exploration of the central ideas of recent religious thinkers: such as Gandhi, Martin Luther King, Jr., Elie Wiesel, Thich Nhat Hanh, Dorothy Soelle, Howard Thurman, Thomas Merton and others.

REL 4265 Religion and the Meaning of Life 6A MW (3) AS REL
What is the meaning of life? An exploration of answers to this question in Eastern and Western religions, and in humanistic philosophies of life.

REL 4350 History of Christianity 6A HP (4) AS REL
Historical development of Western Christianity, its ideas and institutions, from the first century to the rise of religious modernism in the 19th century.

REL 4361 Roman Catholicism 6A MW (3) AS REL
An examination of the history, doctrine, and ethics of the Roman Catholic Church.

REL 4362 Classics of Judaism 6A MW (3) AS REL
PR: One course in Religious Studies. How to read the principal documents of Judaism beyond the Old Testament, particularly the Mishnah, Talmud, Midrash, Tanakh, human dignity, and values.

REL 4367 Introduction to Judaism 6A SS HP AF (3) AS REL
An introduction to Judaism: its religious tenets; its codes of ethics; its rites and customs. This course is intended as a description of what it means to be a Jew.

REL 4368 History of Judaism 4 (A) AS REL
A study of the evolution of the religion of ancient Israel from the Exodus to the end of the second century of our era, seen against the backdrop of its historical, geographical, political, social and spiritual setting.

REL 4373 Modern Judaism 6A MW LW (3) AS REL
A study of Jewish life in the West since 1789, emphasizing Jewish beliefs, practices, and institutions.

REL 4381 History of Writing (2) AS REL
Study, in reasonable detail, of the history and evolution of writing within its societal context. We will stress the development of writing in Mesopotamia, Egypt, and the Mediterranean World, looking at the transition from oral to written literature and its impact on religion.

REL 4382 Directed Readings (1-4) AS REL
PR: CI. Individual guidance in concentrated reading on a selected topic.

REL 4396 Selected Topics (1-4) AS REL
Info regarding reading appropriate to students’ needs.

REL 4413 The Hero and Religion MW 6A (3) AS REL
A study of the way in which embedded religious models help to fashion the representation of an heroic protagonist. The focus of the course will be on the relationship between the hero and the “other,” as differentiated by race, gender, ethnicity, or merely inner being.

REL 4433 Mormonism in America MW (3) AS REL
A study of Mormonism in America as an example of a new religion. Includes the study of history, myths and symbols, texts, beliefs, rituals and practices, believers, recruitment, socialization, and organizations.

REL 4461 Religion, Technology and Society (3) AS REL
An exploration of the way in which religion and technology have interacted in Western civilization so as to both express and transform human values and identity. Special emphasis will be given to the value questions raised by modern technology.

REL 4471 Contemporary Christian Ethics MW (4) AS REL
PR: Jr. standing or CI. A survey of representative approaches to contemporary Christian ethics and their application to a number of ethical issues peculiar to contemporary personal and societal life in a pluralistic society, with an emphasis on issues of race and gender and of violence and non-violence.
REL 4193 Comparative Mysticism (4) AS REL
A course designed to acquaint the student with the nature of mystical experience, and some of the varieties of mystical experience recorded in the writings of the mystics, East and West.

REL 4215 Ancient Israel and the Development of the Hebrew Bible 6A HP AF MW LW (3) AS REL
An exploration of the formation and composition of the Hebrew Bible in light of the religious, social, political, and historical developments in antiquity.

REL 4217 Who Wrote the Bible (Genesis-Kings) 6A MW LW (4) AS REL
A critical examination of Genesis through 2 Kings. This course focuses on the history of the formation of the text and the development of the religious traditions represented therein. Special attention will be paid to Israelite Law, Covenant Theology, and the history of the religion(s) of the Children of Israel in their Ancient Near Eastern context.

REL 4218 Women and the Bible 6A HP AF MW LW (3) AS REL
How the redactors of Genesis through 2 Kings viewed women; the role women played in the society of the time in which they are portrayed and in that of the redactors; and, an attempt to find the "women's voices," however muted, within the biblical text.

An exploration of the Gospels and Acts, including their backgrounds in Judaism and pagan religion, literary and form criticism, historical Jesus research, and the social history of earliest Christianity.

REL 4250 Jesus' Life and Teachings (4) AS REL
An examination of the various historical studies made in the quest of identifying Jesus as an historical figure. The concern is to make a reasonable assessment of who Jesus was and what he was saying to the Jews in Palestine at the beginning of the common era.

REL 4252 New Testament II: Pauline Letters (4) AS REL
The purpose is to examine the text of the thirteen "Pauline Letters" in the New Testament, to compare them with the Pauline sections of Acts, and to secondly understand the theological development of Paul and the "Pauline wing" of Christianity.

REL 4333 Hinduism (4) AS REL
The philosophy of the saints; the complex rituals of the Brahmins; the art of its temples; the psychology and physiology of yoga; the social rigidity of the caste system; the esoteric science of meditation; the ascetic activism of Mahatma Gandhi—all of these are Hinduism, and more. Close readings of classical texts, philosophic systems and medieval poems.

REL 4343 Buddhism in India, Sri Lanka, and South East Asia (4) AS REL
The life and teachings of the Buddha; the order of monks and nuns; the Buddhist Emperor Ashoka; schisms; the rise of the Great Vehicle and the philosophy of emptiness; Buddhist missions; Buddhist art and culture; Buddhism and national liberation; contemporary social and political issues.

REL 4344 Buddhism in China, Japan, and Tibet (4) AS REL
Mahayana Buddhism followed the silk routes to China and Japan, and later it crossed the Himalayas into Tibet. An overview of the variety of schools and practices of Buddhism and its adaptation by these ancient cultures.

REL 4626 Reason in Religion: Talmudic Logic MW (3) AS REL
Analyzes the modes of thought and of logical analysis of the Talmud of Babylonia; the way in which applied logic and practical reason work in a religious definition of the social order; the dialectical argument.

REL 4670 Judaism and Christianity After the Holocaust 6A MW LW (4) AS REL
This course will explore the impact of the Holocaust on Jewish and Christian thought and identity in the light of the history of religious and cultural anti-Semitism in Western civilization.

REL 4910 Undergraduate Research (1-4) AS REL
PR: Junior standing and CI. Individual investigations with faculty supervision.

REL 4911 Undergraduate Research (1-4) AS REL
PR: Junior standing and CI. Individual investigations with faculty supervision.

REL 4930 Selected Topics (3) AS REL
Course contents depend on student demand and instructor’s interest and may range over the whole field of Ancient Religions. Offerings on a semi-regular basis include the Bible as History 3.

REL 4931 Seminar in Religion (3) AS REL
PR: Majors and minors only or CI. A course required for Religious Studies majors and minors, whose prior religious studies have prepared them for a cooperative creative and/or research effort in the area of religious studies.

REL 4936 Selected Topics (1-4) AS REL
PR: Junior standing. Individual investigations with faculty supervision.

REL 4937 Selected Topics: Fall Honors Seminar (3) AS REL
PR: Acceptance into the Religious Studies Honors Program. The course content will depend upon student demand and instructor’s interest.

REL 4938 Selected Topics: Spring Honors Seminar (2) AS REL
PR: Acceptance into the Religious Studies Honors Program. The course content will depend upon student demand and instructor’s interest.

REL 4939 The Development of Religious Studies (4) AS REL
Course designed for senior majors and minors in religious studies. Discussion of key figures and methodological advances in the development of the field from the 18th century to present, with readings of classics in the development.

RMI 3011 Principles of Insurance (3) BA FIN
Analysis of insurable risks of both businesses and individuals. An examination of the characteristics of those areas of risk and uncertainty where the mechanisms of insurance are effective alternatives. The concept, contracts, and institutions involved in insurance are examined in relation to the socio-economic environment.

RMI 4115 Life, Health, And Disability Insurance (3) BA FIN
PR: QMB 3200, RMI 3011. The course will analyze the use of life, health, and disability insurance contracts as a method of dealing with the financial risks of death, sickness, and disability. It will include an analysis of cost determination of the various types of coverage.

RMI 4210 Property Insurance (3) BA FIN
PR: RMI 3011. Course dealing with recognition of personal and business property risks and coverage that can be used in dealing with these risks. Considers the underwriting, marketing, and social problems associated with these coverages. Topics include commercial and residential fire insurance, inland marine and transportation coverages, and multiperil contracts. Not limited to Finance majors.

RMI 4220 Casualty Insurance (3) BA FIN
PR: RMI 3011. Course dealing with recognition of personal and business casualty risks and coverages that can be used in dealing with these risks. Considers the underwriting, marketing, and social problems associated with these coverages. Topics include workmen’s compensation, public liability, auto liability, suretyship, and crime insurances. Not limited to Finance majors.

RTV 2100 Writing For Radio and TV (3) AS COM
PR: CRW 2100 or ENC 3310 and RTV 3001. The art and practice of script planning and writing for radio and television and for corporate videos.

RTV 3001 Introduction to Telecommunications (3) AS COM
PR: MMC 2100 and MMC 3602. A survey of the organization, structure, and function of the broadcasting industry.

RTV 3301 Broadcast News (4) AS COM
PR: MMC 2100 and MMC 3602. Methods in gathering, writing, and editing newscasts for radio and television.

RTV 3941 Radio Practicum (1) AS COM
PR: RTV 3001 and CI. For telecommunications sequence majors. S/U only. Practical experience outside the classroom where the student works for academic credit under the supervision of a professional practitioner. Periodic written and oral reports to the faculty member coordinating the study.

RTV 4220 TV Production and Direction (3) AS COM
PR: RTV 3001 and RTV 3301. A basic course in the techniques of producing and directing TV programs. Restricted to majors only.

RTV 4304 TV News (3) AS COM
PR: RTV 4320. Advanced television reporting, integrating broadcast news writing, ENG production and television performance.

RTV 4320 Electronic Field Production (3) AS COM
PR: RTV 3001 and RTV 3301. Advanced producing, scripting, lighting, camera, and editing for video and news production. Introduction to computer editing and graphics.

RTV 4500 Telecommunications Programming and Management (3) AS COM
PR: RTV 3001. Program and management concepts, resources, costs, selection, and scheduling. Analysis of programming and management in terms of structures, appeals and strengths.

RTV 4942 TV Practicum (1) AS COM
PR: RTV 4220 and CI. For telecommunications sequence majors. S/U only. Practical experience outside the classroom where the
RUS 1120 Beginning Russian I (4) AS WLE
CR: RUS 1120L. The first course in the study of elementary Russian. Emphasis on the development of basic skills in comprehension, speaking and reading.

RUS 1120L Beginning Russian I Laboratory (1) AS WLE
CR: RUS 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

RUS 1121 Beginning Russian II (4) AS WLE
PR: RUS 1120 or CI. CR: RUS 1121L. The second course in the study of elementary Russian. Emphasis on the development of basic skills in comprehension, speaking and reading.

RUS 1121L Beginning Russian II Laboratory (1) AS WLE
CR: RUS 1121. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

RUS 2220 Russian III (4) AS WLE
PR: First year Russian or equivalent. Review and development of basic skills in conversation, composition, and reading.

RUS 2221 Russian IV (4) AS WLE
PR: RUS 2220 or equivalent. Review and development of basic skills in conversation, composition, and reading.

RUS 2270 Overseas Study (1-6) AS WLE
Intensive study of the Russian language in Russia involving at least 20 hours per week of classroom instruction and cultural excursions conducted in Russian around Moscow and other parts of Russia.

RUS 3240 Conversation I (4) AS WLE
PR: Second year Russian or equivalent. Development of basic conversational skills.

RUS 3470 Overseas Study (1-6) AS WLE
Must be enrolled in the USF Summer Study in Moscow program. Two years Russian required. Intensive Russian at Moscow Linguistic University with excursions in Moscow and Russia. Students from other institutions eligible.

RUS 3500 Russian Civilization 6A MW (3) AS WLE
A survey of the cultural history of Russia.

RUS 4241 Conversation II (4) AS WLE
PR: Previous course in series or equivalent. Development of conversational skills.

RUS 4402 Advanced Russian Conversation & Composition I (4) AS WLE
PR: RUS 4241 or CI. Third year Russian.

RUS 4403 Advanced Russian Conversation & Composition II (4) AS WLE
PR: RUS 4241 or CI. Third year Russian.

RUS 4471 Advanced Overseas Study (1-6) AS WLE
Must be enrolled in the USF Summer Study in Moscow program. Three years Russian required. Intensive Russian at Moscow Linguistic University with excursions in Moscow and Russia. Students from other institutions eligible.

RUS 4900 Selected Topics (1-3) AS WLE
Study of an aspect of Russian literature.

RUS 4905 Directed Study (1-3) AS WLE
Departmental approval required.

RUT 3110 Russian Classics in English 6A MW LW (3) AS WLE
Masterpieces of 19th century Russian literature in English, the major works of Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky, Tolstoy, and Chekhov. Elective for all students in all departments.

RUT 3111 Twentieth-Century Russian Literature in English 6A MW LW (3) AS WLE
Masterpieces of 20th century Soviet literature in English, the major works of Bely, Olesha, Babel, Zamyatin, Bulgakov, Pasternak, and Solzhenity. Elective for all students in all departments.

SCE 4305 Communication Skills in the Science Classroom (3) ED EDN
Reading and communication skills important in understanding scientific and science education literature and communicating findings to others.

SCE 4310 Teaching Elementary School Science (3) ED EDE
PR: Admission to College of Education and completion of General Distribution Requirements in the Natural Science area. Techniques and materials for teaching science in the elementary school.

SCE 4320 Teaching Methods in Middle Grade Science (3) ED EDN
PR: Completion of 25 semester hours of Science or CC. Not designed for high school certification purposes. Survey techniques and materials unique to science, grades 5-9.

SCE 4330 Teaching Methods in the Secondary School-Sciences (3) ED EDN
PR: Completion of 26 hours in approved science areas, EDG 4620 or CP, and CC. Techniques and materials of instruction in secondary school sciences.

SCE 4862 Science, Technology, Society Interaction 6A MW (4) ED EDN
Achieve an historical and philosophical understanding of (1) the nature of the scientific enterprise: interaction of science, technology, and society (STS), (2) how to teach STS including the use of computers and related technologies, and (3) intricacies of sample STS topics.

SCE 4936 Senior Seminar in Science Education (1-3) ED EDN
PR: Senior standing; CR: SCE 4940. Synthesis of teacher candidate’s courses in complete college program.

SCE 4940 Internship: Science Education (1-12) ED EDN
CR: SCE 4936. One full semester of internship in a public or private school.

SCE 5564 Reading and Communication in Science Education (3) ED EDN
The course prepares secondary science teachers to teach literacy practices in science. It includes methods for selecting appropriate reading and language approaches. Communication in science and functional aspects of scientific literacy are examined.

SCE 5937 Selected Topics in Science Education (1-4) ED EDN
PR: RUS 2220 or equivalent. Two years Russian required. Intensive Russian at Moscow Linguistic University, with excursions in Moscow and Russia. Students from other institutions eligible.

SLS 1101 The University Experience (2) US DEA
PR: Freshman only. An extended introduction to USF. Topics include purposes of higher education, structure and function of USF, career planning, selecting a major, study skills, managing time, academic advising, computer resources, and decision-making.

SLS 2260 Leadership Fundamentals (3) US STL
Covers a broad range of leadership topics from self-development and understanding of self, to group behavior, organizational design, ethics and teamwork. The potential of every individual to develop effective leadership skills is examined.

SLS 2401 Career Development Process (2) US DEA
Students will study vocational choice theories and participate in career decision processes. Development of self-awareness and knowledge of career opportunities and requirements necessary for decision making. Available to lower level majors or non-majors.

SLS 3930 Selected Topics in Student Leadership (1-4) US STL
Course content will depend upon the interest of the faculty member and student demand.

SLS 3948 Community Leadership Practicum (3) US STL
PR: SLS 2260. This course involves the transference of leadership theories into practice. It provides a practical forum for students to examine and develop personal leadership skills.

SLS 4271 Organizational Theories and Processes (3) US STL
PR: SLS 2260 and SLS 4272. Participants will delve into the nature of organizational dynamics, they will utilize concepts, generalizations, theories, and frames of reference to analyze organizations and leadership to understand and improve their function.

SLS 4272 Survey of Leadership Readings (3) US STL
PR: SLS 2260. Survey of historical and contemporary writings on leadership skills and practices. Examines the contextual manner in which the leader functions.

SLS 4273 Theories of Leadership HP (3) US STL
PR: SLS 2260, PR: SLS 4272. Focuses on historical and modern views of leadership. It is designed to assist students analyzing and understanding the historical, social, political aspects of leadership theories and styles as well as the application of leadership theories in settings.

SLS 4274 Ethics and Power in Leadership (3) US STL
PR: SLS 2260, SLS 4272. Course reviews arguments for ethics in leadership as proposed by both contemporary and ancient leadership theories. It also examines theories of power and authority, and seeks answers to the apparent dilemmas through the study of moral theory and psychology.

SLS 4276 Images of Leadership in Print and Film (3) US STL
PR: SLS 2260, PR: SLS 4272. This course examines the historical development of leadership theory through contemporary times. Surveys literature and other media relevant to the
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Requirements</th>
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<tbody>
<tr>
<td>SOP 3742</td>
<td>Psychology of Women SS (3) AS WST</td>
<td></td>
<td>An examination of theories of female personality in historical perspective. Current research on sex differences, socialization, sexuality, and psychology of reproduction. Emerging roles of women as related to social change and developmental tasks of the life cycle.</td>
</tr>
<tr>
<td>SOP 4004</td>
<td>Social Psychology (3) AS PSY</td>
<td></td>
<td>PR: PSY 3213 with a grade of C or better. Survey of methods, empirical findings, and theoretical interpretations in the study of an individual’s behavior as it is affected by others.</td>
</tr>
<tr>
<td>SOP 4330</td>
<td>Social Psychology of HIV/AIDS (3) AS PSY</td>
<td></td>
<td>PR: PSY 3017. Study social psychology theory and research while working at an AIDS service organization. They use the research as a framework for understanding, and developing solutions to, problems confronting the organization’s staff and clients.</td>
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<tr>
<td>SOW 4514</td>
<td>The Holocaust, Social Prejudice, and Morality (3) AS PSY</td>
<td></td>
<td>PR: PSY 2012. Examines the Holocaust from social, psychological, and communication/language perspectives. Reviews root causes of prejudice, the manifestations of hatred in language, relationships, and the ultimate impacts on victims and survivors.</td>
</tr>
<tr>
<td>SOW 4510L</td>
<td>Field Placement (6) AS SOK</td>
<td></td>
<td>PR: SOW 3302, SOW 3101, SOW 4301, SOW 4431, SOW 3102, SOW 4343, SOW 4522. CR: SOW 4233, SOW 4510L. Restricted to full Social Work majors in senior year. Integrates content and theory from core classes with practice experiences students are having in field placement.</td>
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<tr>
<td>SOW 4510</td>
<td>Field Placement (6) AS SOK</td>
<td></td>
<td>PR: SOW 3302, SOW 3101, SOW 4301, SOW 4431, SOW 3102, SOW 4343, CR: SOW 4233, SOW 4510. 25U only. Supervised field placement in a social welfare organization consisting of 32 hours per week in the field with a total of 480 clock hours per semester.</td>
</tr>
<tr>
<td>SOW 4522</td>
<td>Multicultural America (3) AS SOK</td>
<td></td>
<td>PR: All provisional major courses. The course focuses on the students’ understanding of multicultural and intergenerational issues.</td>
</tr>
<tr>
<td>SOW 4900</td>
<td>Directed Readings (1-9) AS SOK</td>
<td></td>
<td>PR: Completion of four social work courses including SOW 3401, upper level standing, and School permission. Course is taken as PR. CR: SOW 4510.</td>
</tr>
<tr>
<td>SOW 4910</td>
<td>Directed Research (1-6) AS SOK</td>
<td></td>
<td>PR: Completion of four social work courses including SOW 3401, upper level standing, and School permission. Majors only. Directed Research is intended to provide students with experience in areas of specific interest in social work. Course will be developed between student and instructor specifying nature of work to be completed.</td>
</tr>
<tr>
<td>SOW 4930</td>
<td>Variable Topics in Social Work (1-3) AS SOK</td>
<td></td>
<td>Restricted to Social Work majors. Course is taken as an elective. Topics include courses in communication disorders. Comparisons of normal and abnormal language development.</td>
</tr>
<tr>
<td>SPA 3030</td>
<td>Introduction to Disorders of Speech and Language SS (3) AS CSD</td>
<td></td>
<td>PR: SPO 3002, SPO 3101, SPO 4301, SPO 4431, SPO 4510, SPO 4510L. Restricted to full Social Work majors, others by School permission. An introductory course tracing the development of social work as a profession including an examination of the knowledge, skill and attitudinal base of the profession and professional roles and functions.</td>
</tr>
<tr>
<td>SPA 3011</td>
<td>Introduction to Speech Science (3) AS SOK</td>
<td></td>
<td>PR: SPA 3002, SPA 3101, SPA 3112, SPA 3310. Introduction to instrumentation and measurement procedures.</td>
</tr>
<tr>
<td>SPA 3004</td>
<td>Introduction to Language Development and Disorders (3) AS CSD</td>
<td></td>
<td>PR: SPA 3002, SPA 3112 or DPR. This course introduces theoretical concepts and research findings concerning the normal and abnormal developmental process of language learning as a basis for differentiating developmental delay or disorder of language.</td>
</tr>
<tr>
<td>SPA 3011</td>
<td>Introduction to Speech Science (3) AS CSD</td>
<td></td>
<td>PR: SPA 3030, SPA 3101 and SPA 3112. Concentrated study of the acoustic, physiological and perceptual aspects of sound as related to normal and pathological speech communication.</td>
</tr>
<tr>
<td>SPA 3010</td>
<td>Anatomy and Physiology of the Speech and Hearing Mechanism (3) AS CSD</td>
<td></td>
<td>PR: Junior standing. The neurological and anatomical basis of communication disorders. Comparisons of normal and pathological organic structures and their functional dynamics.</td>
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</tbody>
</table>
SPA 3112 Applied Phonetics in Communication Disorders (3) AS CSD
PR: Junior standing. Introduction to phonetic analysis of normal and disordered speech, including extensive training in transcription using the International Phonetic Alphabet.

SPA 3310 Introduction to Disorders of Speech Swallowing (3) AS CSD
PR: SPA 3030 and SPA 3101. The etiology, pathology, and management of disorders of the outer ear, middle ear, inner ear, retrocerebral, and central auditory systems.

SPA 3633 American Sign Culture (3) AS CSD
PR: SPA 4614C. An overview to American Deaf Culture, including its norms, values and belief systems. This course will also provide insight to deaf history in North America, and the importance of ASL to the culturally Deaf community.

SPA 3650 Fundamentals of Interpreting (3) AS CSD
PR: SPA 4615C. An overview of the profession of interpreting, its standards and settings is provided. It provides a basic practical experience component of interpreting and transliterating skills.

SPA 3653 Overview of Language Learning in Deaf Children (3) AS CSD
PR: Admission to ITT Program. CR: SPA 3653L. This course is restricted to majors only. Overview of language development of deaf children from infancy through young adulthood, including various theories of language development in the deaf and communication/language of the deaf assessment techniques, and interpreting skills relating to the deaf.

SPA 3653L Overview of Language Learning in Deaf Children Lab (1) AS CSD
PR: Admission to ITT Program. CR: SPA 3653. This course is restricted to majors only. An exploration and overview of communication modes and language used in public school settings by deaf children. Includes a study of how systems overlap and a development of flexibility in using different modes and languages, and the implications for interpreters.

SPA 3664 Language and Cognitive Processing Skills in English (4) AS CSD
PR: SPA 4615C; CR: SPA 3665. Students develop the cognitive processing and language skills within English that are preliminary steps for interpretation. It will develop student’s ability to segment information to perform various cognitive tasks intralinguistically. For majors only.

SPA 3665 Language and Cognitive Skills in ASL (4) AS CSD
PR: SPA 4615C; CR: SPA 3664. Students acquire cognitive processing and language development within ASL that are preliminary steps for performing simultaneous interpretation. This course also includes a service component by volunteering in various deaf communities. For majors only.

SPA 3666 Translation from English and from ASL (3) AS CSD
PR: SPA 3664, SPA 3665. A course of intralingual language exercises that introduces students to techniques of rephrasing and restructuring meaning in ASL and in English. For majors only.

SPA 3669 Introduction to Auditory Functions (3) AS CSD
PR: Admission to ITT Program. This course is restricted to majors. An overview of hearing science and speech science relating to the educational environment. This course orient the student to the variables extent in oral-aural communication among children who have hearing impairment. It addresses techniques and methods of hearing measurement and amplification of sound as well as the interpreter’s role in audiological evaluation and speech language therapy.

SPA 4000 Communication Disorders in the Public Schools (3) AS CSD
PR: DPR. (Non-major course only). An examination of the speech, language and hearing problems affecting school-age children and the classroom teacher’s role in the detection, prevention and amelioration of communication disorders.

SPA 4050 Introduction to the Clinical Process MW (3) AS CSD
PR: SPA 3030 and SPA 3510. Observation and participation in speech-language pathology and audiology practicum in the University clinical laboratory. Ethical issues, multicultural concerns, and creativity are stressed through clinical and practical projects.

SPA 4201 Phonological Development and Disorders (3) AS CSD
PR: SPA 3004, SPA 3011. An examination of normal and deviant articulatory and phonological acquisition and behavior. Preatural theoretical orientations and the therapeutic principles based upon them.

SPA 4210 Vocal Disorders (3) AS CSD
PR: SPA 3011 and SPA 3310. A comprehensive study of the medical and physical aspects of voice disorders. Differential diagnosis, principles of therapeutic intervention, and procedures for children and adults will be stressed.

SPA 4222 Fluency Disorders (3) AS CSD
PR: SPA 4201. A comprehensive study of disfluent speech behavior. Differential diagnosis, principles of therapeutic intervention, and procedures for children and adults will be studied. Major theories and models of the development and origin of stuttering are also presented.

SPA 4355 Sign Language Codes (3) AS CSD
PR: SPA 2613C. A concentrated study of technique in fingerspelling, morphosyntax, and Signed English used to code messages through the use of sign. The student will have the opportunity to practice one of the sign systems.

SPA 4555 Counseling of Communicatively Handicapped and Family (3) AS CSD
PR: SPA 3011 and SPA 3310. Discussion of role of counseling in the treatment of communication disorders. Based on exploration of theoretical constructs, this course demonstrates application of therapeutic methodologies to reduction of communication handicaps.

SPA 4614C Advanced American Sign Language (4) AS CSD
PR: SPA 2613C. A continuation of the study of American Sign Language (ASL) at the advanced skill level. Added emphasis on idioms, body language, and facial expression as an integral part of ASL. An hour of laboratory course work is included.

SPA 4615C American Sign Language 4 (4) AS CSD
PR: SPA 4614C. This course is a continuation of the study of American Sign Language (ASL) at the highly advanced level. It provides added emphasis on skill development of the language, including storytelling and poetry. One-hour laboratory course work is included.

SPA 4617C Structure of Sign Language (4) AS CSD
PR: SPA 2612C and SPA 2613C. This course is a basic introduction of semantic and linguistic consideration of American Sign Language (ASL). It includes aspects of phonology, morphology, syntax, semantics, and discourse of ASL. A one-hour lab is incorporated into the coursework.

SPA 4624 Sign Language Codes (3) AS CSD
PR: CI. A review of the sign systems (SEE I, SEE II, LOVE, and Signed English) used to code messages through the use of sign. The student will have the opportunity to practice one of the sign systems.

SPA 4626 Fundamentals of Fingerspelling (2) AS CSD
PR: DPR. A concentrated study of technique in fingerspelling. Emphasizing clarity and rhythm in expression as well as receptive understanding.

SPA 4632 Nature and Needs of the Deaf and Hard of Hearing (3) AS CSD
A study of the effects of auditory disorders upon the organization and expression of behavioral patterns as they relate to motivation, adjustment and personality.

SPA 4654 ASL to English Consecutive Interpretation (2) AS CSD
PR: SPA 3650, SPA 3665. Students consecutively interpret conversational discourse of planned and unplanned conversational language samples from ASL to English with delays of a few seconds after the source utterance is finished. For majors only.

SPA 4655 English to ASL Consecutive Interpretation (2) AS CSD
PR: SPA 3650, SPA 3666; CR: SPA 4654. Students consecutively interpret conversational discourse from English to ASL with delays from conversational language samples of various lengths ranging from single utterances to discourse units of several minutes duration. For majors only.

SPA 4656 Simultaneous Interpretation Monologic (4) AS CSD
PR: SPA 3650, SPA 3666. Students simultaneously interpret monologic talk from ASL and from English with target language beginning before the conclusion of the source utterance and continuing as the student listens to the continuing source utterance. For majors only.

SPA 4658 Simultaneous Interpretation Dialogic (4) AS CSD
PR: SPA 4656. Students interpret dialogues from ASL to English and from English to ASL with the target language beginning before the conclusion of the source utterance and continuing as the student listens to the continuing source utterance. For majors only.

SPA 4685 Practicum: Interpreting in Schools (1-9) AS CSD
This course is restricted to ITT majors. The course provides practice sessions in school settings under supervision of an experienced interpreter and course instructor. Each practicum student will shadow an interpreter, and participate in discussion about the overall performance.
SPA 4691 Senior Seminar in Interpreter Training (3) AS CSD
PR: SPA 4656. Students expand upon previously learned topics and discuss factors that will affect their profession. Topics include: professional organization, certification, ethics and discuss best practices and will produce a professional portfolio. For majors only.

SPA 4906 Independent Study (1-10) AS CSD
Indep. Study will allow USG students to work independently under the supervision of Faculty members in the pursuit of content gained independently. The course is repeatable for a total of 10 credits. Majors only.

SPA 4910 Directed Research (1-10) AS CSD
Directed Research will allow the USG student to obtain supervised research experience under the direction of a Faculty member. The course is repeatable for a total of 10 credits. Majors only.

SPA 4930 Selected Topics (1-6) AS CSD
PR: DPR. Intensive study of topics in Speech-Language Pathology, Audiology, and/or Aural Rehabilitation conducted under the supervision of a faculty member.

SPA 4962 Undergraduate Comprehensive Examination (1) AS CSD
PR: SPA 4656. This purpose of this course is to ensure that graduates from ITT are thoroughly prepared for entry into the job market. For majors only and repeatable if necessary. It consists of 2 parts: individual meetings with an advisor and a comprehensive exam.

SPA 4970 Honors Thesis (1-10) AS CSD
The student, under the supervision of a Faculty member will formalize, conduct, analyze and report in writing a research project in the Department of Communication Sciences and Disorders. The course is repeatable for a total of 10 credits. Majors only.

SPA 5120 Psychoacoustics (3) AS CSD

SPA 5132 Instrumentation (3) AS CSD
PR: SPA 5120, SPA 6930, SPA 5506. Instruction in the use of clinical and laboratory instrumentation. Emphasis placed on electronic circuitry, signal generation, filtering, and calibration. Hands-on experience with equipment typically used in clinical auditory research will be provided.

SPA 5133C Speech Science Instrumentation (3) AS CSD
PR: DPR or SPA 3011 or equivalent. Underlying principles and laboratory exercises in the use of audio recording, acoustic analysis, and clinical instrumentation.

SPA 5153 Quantitative Problem Solving in Speech Pathology and Audiology (2) AS CSD
Fundamental statistical and conceptual concepts: meaningful, practical, and interesting presentation. Students get a solid foundation in the mathematical and statistical concepts in CSD and apply those concepts to solve practical or clinical problems.

SPA 5204 Advanced Clinical Phonology (3) AS CSD
The principles of generative phonology will be applied to the assessment and treatment of phonological disorders. Emphasis is placed on making a child’s phonology more functional for communication purposes.

SPA 5303 Auditory Anatomy and Physiology (3) AS CSD
Provide a comprehensive understanding of the physiological and psychological aspects of the auditory system. Neuroanatomy and electrophysiology of the central auditory system, and psychoacoustic principles as they relate to clinical audiologic measurement paradigms.

SPA 5312 Peripheral and Central Auditory Tests (4) AS CSD
PR: DPR. The study of behavioral and electrophysiologic clinical tests designed to assess the functions of the peripheral and the central auditory system. Tests that incorporate non-speech stimuli and those that utilize speech stimuli will be included.

SPA 5328 Rehaabilitative Audiology for Adults (3) AS CSD

SPA 5403 Language-Learning in the School-Age Years (3) AS CSD
PR: SPA 4201 and DPR. Metalinguistic and metacognitive development are linked to the instructional demands of classroom and clinical discourse; observational tools are applied to evaluation and intervention planning.

SPA 5506 Speech-Language Pathology and Audiology Practicum (1-8) AS CSD
PR: DPR. Participation in speech-language pathology and audiology practicum in the University Communication Disorders Center and selected field settings.

SPA 5552 Diagnostic Principles and Practices (3) AS CSD
PR: Admission to the graduate program or DPR. The administration, evaluation, and reporting of diagnostic tests and procedures used in assessment of speech and language disorders.

SPC 2541 Persuasion SS (3) AS SPE
Examines the role of persuasion in public and social life. Students will be introduced to key concepts and theories of persuasion from a variety of historical and contemporary perspectives. Students will use these concepts to create, analyze, and respond to persuasive messages.

SPC 2600 Public Speaking SS (3) AS SPE
The nature and basic principles of human communication; emphasis on improving speaking and listening skills common to all forms of oral communication through a variety of experience in public discourse.

SPC 3212 Communication Theory (3) AS SPE
PR: SPC 2600 and COM 2000 each with a C or above or CI. The study of source, message, and receiver variables in human communication; communication settings; descriptive and prescriptive models; communication as a process.

SPC 3230 Rhetorical Theory HP (3) AS SPE
PR: SPC 2600 and COM 2000 each with a C or above or CI. This course surveys the foundations and historical evolution of major rhetorical and scientific approaches to the study of rhetoric from Plato to recent contemporary theorists.

SPC 3301 Interpersonal Communication SS (3) AS SPE
A study of interpersonal communication in formally structured settings with emphasis on understanding, description, and analysis of human communication.

SPC 3425 Group Communication 6A (3) AS SPE
PR: SPC 2600 and COM 2000 each with a C or above or CI. A survey of theory and research in group communication. Group discussions and communication exercises to increase awareness of the dynamics of human communication in small group settings.

SPC 3513 Argumentation and Debate (3) AS SPE
PR: Junior standing or CI. Study of principles of argumentation as applied in oral discourse, analysis of evidence and modes of reasoning. Practice in debate preparation and delivery.

SPC 3602 Advanced Public Speaking (3) AS SPE
PR: SPC 2600 and COM 2000 each with a C or above or CI. Study and application of communication strategies in speaking extemporaneously and from manuscript. The course includes study of selected public addresses as aids to increased understanding of speaking skills.

SPC 3631 Rhetoric of the Sixties HP (3) AS SPE
Survey of the rhetoric associated with the civil rights movement, the Vietnam War, the student movement, the women's movement, the anti-war movement, the black power movement, the Chinese culture, the black power movement, and the women's movement.

SPC 3653 Popular Forms of Public Communication (3) AS SPE
PR: COM 2000 with C or above or consent of instructor (CI). Analysis of public communication with emphasis on various presentational forms.

SPC 3680 Rhetorical Analysis (3) AS SPE
PR: SPC 2600 and COM 2000 each with a C or above or CI. This course introduces students to fundamentals of message analysis. Student examines persuasive strategies and language in oral and written discourse.

SPC 3710 Communication and Cultural Diversity SS (3) AS SPE
Examination of communication and cultural diversity within the United States. Cultural groups include gender, racial and ethnic (e.g., African American, Latino American, Asian American), social class, age and generation, religious (e.g. Jewish) and physical ability.

SPC 4201 Oral Tradition MW (3) AS SPE
Study of orality, its forms, functions, and transformations, in traditional and literate societies from folkloric and psychological traditions and from contemporary communication and cultural studies perspectives.

SPC 4305 Communicating Emotions 6A (3) AS SPE
PR: COM 2000 with C or above or consent of instructor (CI). Study of emotional experience, what emotions mean to us, how we talk about them, and the ways group and cultural membership influence them. Focus on attachment and loss in romantic, family and group relationships.
SPN 1121 Beginning Spanish II (4) AS WLE
CR: SPN 1121. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. Not open to native or near-native speakers of Spanish. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

SPN 1130 Accelerated Spanish For Near-Native Speakers and Others (1-6) AS WLE
PR: CI. Accelerated course for near-native speakers and others with some knowledge of Spanish capable of making rapid progress.

SPN 2200 Spanish III (3) AS WLE
PR: SPN 1121 or equivalent. May NOT be taken concurrently with SPN 2201. Not open to native or near-native speakers of Spanish. Continued development of basic skills in listening and reading comprehension, speaking and writing of Spanish.

SPN 2211 Spanish IV (3) AS WLE
PR: SPN 2200 or equivalent. May NOT be taken concurrently with SPN 2200. Not open to native or near-native speakers of Spanish. Continued development of basic skills in listening and reading comprehension, speaking and writing of Spanish.

SPN 2240 Conversation I (3) AS WLE
PR: SPN 2201. Not open to native or near-native speakers of Spanish. For development of basic conversational skills.

SPN 2341 Advanced Spanish for Native Speakers II (3) AS WLE
PR: SPC 1120. Course for native and near-native speakers of Spanish due to home environment and/or residence in a Spanish-speaking country, but without formal training in the language. Emphasis on cultural exploration and the grammatical problems of such speakers.

SPN 2344 Spanish for Business and International Trade I (3) AS WLE
PR: SPC 2201 or equivalent. A study of vocabulary and business practices of the Spanish speaking world. Overview of cultural differences within the Spanish speaking world, with emphasis on their impact on business and international trade.

SPN 3000 Spanish Civilization (3) AS WLE
PR: SPN 2201 or equivalent. Open to Spanish and Business majors and minors. Continuation of SPN 3440. A study of vocabulary and business practices of the Spanish speaking world. Overview of cultural differences within the Spanish speaking world, with emphasis on their impact on business and international trade.

SPN 3500 Spanish Civilization (3) AS WLE
PR: SPN 2201 or equivalent. Open to Spanish and Business majors and minors. Continuation of SPN 3440. A study of vocabulary and business practices of the Spanish speaking world. Overview of cultural differences within the Spanish speaking world, with emphasis on their impact on business and international trade.

SPN 3710 Expository Writing (3) AS WLE
PR: SPN 3500 or SPN 2340. Practical training in contemporary composition structure, usage and stylistic devices.

SPN 4301 Advanced Conversation (3) AS WLE
PR: SPN 2241 or equivalent. Not open to native or near-native speakers of Spanish. Intensive practice in the formulation and expression of ideas in a lab setting.

SPN 4470 Advanced Overseas Study (1-6) AS WLE
expected to plan and present instructional plan(s) demonstrating motivating teenage youth to acquire the information, skills, and modes of reasoning unique to the social sciences. This course is designed to study techniques and strategies of reasoning unique to the social sciences. Text and discussion in Spanish.

SPW 5465 19th Century Literature (3) AS WLE
PR: SPW 3030 or equivalent. A study of Spanish literature from the discovery through the Romantic period. Emphasis will be on foundational works of history, descriptive and lyric poetry, theater, fiction and essay.

SPW 4131 Survey of Spanish-American Literature II (3) AS WLE
PR: SPW 3030 or equivalent. An introduction to the study of Spanish-American literature from the Discovery to the Romantic period. Emphasis will be on foundational works of history, descriptive and lyric poetry, theater, fiction and essay.

SPW 4100 Directed Study (1-3) AS WLE
Departmental approval required.

SPW 4930 Selected Topics (1-3) AS WLE
Study of an author, movement or theme.

SPW 5155 Colonial Spanish American Literature (3) AS WLE
PR: SPW 4131. Introduction to Colonial Spanish American literature from the discovery through the Romantic period.

SPW 5355 Spanish American Drama and Poetry (3) AS WLE
PR: SPW 4131. Major writers of all genres. Emphasis on modern writers.

SPW 5387 Spanish American Prose (3) AS WLE
PR: SPW 4131. Emphasis on the gauchito theme and contemporary prose fiction.

SPW 5200 Golden Age Poetry and Drama (3) AS WLE
PR: SPW 4100. Lope de Vega, Alarcon, Tirso, Calderon, and others.

SPW 5405 Medieval Literature (3) AS WLE
PR: SPW 4040 or equiv. Course gives an in-depth study of principal works and authors of the period such as El Poema de Mio Cid, Libro de Buen Amor, and La Celestina.

SPW 5465 19th Century Literature (3) AS WLE

SPW 5605 Cervantes (3) AS WLE
Cervantes’ masterpiece Don Quijote de la Mancha.

SPW 5726 Vanguard Literature 1918 and 1936 (3) AS WLE

SPW 5934 Selected Topics (3) AS WLE
PR: Upper-level or GS. Study of an author, movement, or theme.

SSE 4313 Teaching Elementary (K-6) Social Studies (3) ED EDE
PR: Admission to College of Education or CI. This course is designed to study techniques and strategies employed by K-6 social studies teachers that are effective in motivating elementary school-aged youth to acquire the information, skills, and of reasoning unique to the social sciences. Students are expected to plan and present instructional plan(s) demonstrating use of various methods, techniques, and material that achieve concrete outcomes. Theoretical foundations of social studies are further developed. Emphasis will be on foundational works of history, descriptive and lyric poetry, theater, fiction and essay.

SSE 4333 Teaching Secondary Grades Social Science (3) ED EDW
PR: SSE 4333. This course is a continuation of SSE 4333 with further development of the instructional techniques and strategies and the information, skills, and modes of reasoning unique to the social sciences with an emphasis on the secondary school environment. The teaching profession, school settings, legal, and classroom management issues are also studied. Fieldwork in a high school is required.

SSE 4335 Teaching Social Science Themes (3) ED EDI
PR: SSE 4333 for Undergraduate Students; SSE 5331 for Graduate Students. This course is designed to study techniques and strategies employed by social studies teachers that are effective in motivating teenage youth to acquire the information, skills, and modes of reasoning unique to the social sciences. The teaching profession, school settings, legal, and classroom management issues are also studied. Fieldwork in a high school is required.

SSE 4340 Communication Skills in the Social Sciences (2) ED EDW
PR: SSE 4333, SSE 4334 This course emphasizes preparation for instruction and demonstration of instructional techniques in social sciences covered in SSE 4333 and SSE 4334 with an emphasis on students developing their communication, presentation, and organizational skills.

STA 2023 Introductory Statistics I 6A QM (4) AS MTH
PR: C (2.0) or better in MAT 1033, or 440 or better SAT Math score, or 19 or better ACT Math score, or 72 or better Elementary Algebra CPT score. No credit for Mathematics majors. Descriptive statistics, basic probability principles, discrete and continuous probability distributions; binomial, Poisson, uniform, normal, t, chi-square and F; point estimation, confidence limits, hypothesis testing, correlation and linear regression. Emphasis on applications to social sciences, life sciences, physical sciences, engineering and business.

STA 2122 Social Science Statistics 6A QM (3) AS ISS
Descriptive and inferential statistics - through ANOVA, correlation-regression, chi-square and now-parametrics. The course presents statistics with the view that numbers are a limited, but important aspect of understanding the world. Draws concepts and hypothesis from a wide range of disciplines.

STA 3024 Introductory Statistics II 6A (3) AS MTH
PR: STA 2023 or CC. Factorials, ANCOV; multiple curvilinear regression; response surfaces; Latin squares; Split Plots; incomplete designs; distribution free methods.

STA 4321 Essentials of Statistics 6A (3) AS MTH

STA 4442 Introduction to Probability 6A (3) AS MTH
PR: MAC 2313. Introduction to probability theory using calculus. Basic ideas of probability and random variables, discrete probability functions, continuous probability densities, joint distributions, transformations of random variables, moments and generating functions of random variables, limit theorems.

STA 5166 Statistical Methods I (3) AS MTH
PR: STA 4321 or CI. Statistical analysis of data by means of statistics package programs. Regression, ANOVA, discriminate analysis, and analysis of categorical data. Emphasis is on the relation between statistical theory, numerical methods, and analysis techniques.

STA 5228 Sampling Techniques (3) AS MTH

STA 5326 Mathematical Statistics I (3) AS MTH
PR: STA 5446. Sample distribution theory, point & interval estimation, hypothesis testing, statistical decision theory, and hypothesis testing.

STA 5446 Probability Theory I (3) AS MTH
PR: STA 5442 or MAA 4212 or CI. Axioms of probability, random variables in Euclidean spaces, moments and moment generating functions, modes of convergence, limit theory for sums of independent random variables.

STA 5526 Non-Parametric Statistics (3) AS MTH
PR: STA 5326 or CI. Theory and methods of non-parametric statistics, order statistics, tolerance regions, and their applications.

SUR 2101C Engineering Land Surveying (3) EN EGX
Principles of land surveying for engineering practice. Traverses, levels, boundary surveys, route surveys, coordinate geometry, and mapping.

SYA 3110 Classical Theory (3) AS SOC
PR: SYG 2000 or CI. The analysis of the philosophical foundations, central principles, and historical development of Sociological theory. Required for Sociology majors and minors.

SYA 3120 Contemporary Theory (3) AS SOC
PR: SYA 3110 or SYG 2000 or CI. An examination of recent trends in sociological theory. Emphasis is on theories examining symbolic interactions, lived experience, popular culture, and social structures.

SYA 3300 Research Methods (3) AS SOC
PR: STA 2122 or equivalent. Introduction to the scientific method and its application to social science research. Research design, sampling techniques, and critical evaluation of social research. Required for Sociology majors.

SYA 3310 Qualitative Inquiry 6A LW (4) AS SOC
PR: SYG 2000 or CI. DPR. Exploration of human relationships and behaviors, organizations, and the larger culture through research techniques such as interviews, participant observation, life histories, and narratives.

SYA 4304 Sociological Research Experience (1-3) AS SOC
PR: SYG 3300 or SYG 3200 or CI. DPR. This course provides an opportunity for advanced undergraduate students interested in participating in an ongoing faculty research project. Students will complete selected research tasks (background research, data collection and data analysis) with faculty supervision.

SYA 4910 Individual Research (1-3) AS SOC
PR: Four courses in sociology, including SYA 3300, upper level standing, at least 3.0 GPA, or CI. DPR. Content depends on the interest of the student. A contract between the student and the sponsoring faculty member must be signed before class registration.

SYA 4930 Topics in Sociology (3) AS SOC
Selected specialized topics in Sociology. Topics such as AIDS in society, drugs in society, problems in education, sociology of childhood, public life, socio-biology. Content will vary by semester and by section. See class schedule for specific contents each semester. This course, in different content areas, may be repeated for credit.

SYA 4935 Senior Seminar MW (3) AS SOC
PR: Senior standing, SYG 2000. SYA 3010, SYA 3300 plus 6 hours of Sociology electives. Majors only. DPR. The opportunity for senior Sociology majors to apply theory and methods to a selected topic of relevance in today’s society. Topic changes by instructor.

SYA 4949 Sociological Internship (1-6) AS SOC
PR: Senior or graduate standing in Sociology plus CI. Supervised placement in community organization or agency for a minimum of 20 hours of volunteer work per week, and a weekly seminar on applying sociological skills and methods in the placement setting.

SYD 3441 Peasant Perspectives AF (3) AS SOC
PR: SYG 2000 or 6 hours of other Social Sciences Gen. Ed. coursework or CI. Examines the applicability of sociological concepts to peasant life around the world, and explores the role played by “western” societies in creating and sustaining these conditions under which peasants live.

SYD 3700 Racial and Ethnic Relations SS HP (3) AS SOC
Comparative study of interracial relations, social tensions, attitudes, and modes of adjustment in various areas of the world.

SYD 4800 Urban Sociology (3) AS SOC
The social structure of the community in modern industrial societies. Analysis of community change.

SYD 4411 Urban Life (3) AS SOC
PR: SYG 2000 This course provides a number of insights into how living in cities has changed throughout history, how it varies culturally, and how it has been theorized in sociology.

SYD 4800 Gender and Society (3) AS SOC
Historical and current issues surrounding gender in America. Emphasis on exploring the causes, meanings, and consequences of gender differences, interpersonal relationships, and institutional participation.

SYG 2500 Introduction to Sociology SS (3) AS SOC
An introduction to sociological perspectives and methods and the basic areas of sociological interests such as socialization, gender, race and ethnic relations, deviance, social control, and social stratification. Required for Sociology majors and minors.

SYG 2010 Contemporary Social Problems SS (3) AS SOC
The analysis of social causes and dimensions of major public issues such as crime, the environment, inequality, gender, employment, and substance abuse.

SYG 2412 Marriage (3) AS SOC
Study of pre-marital relations. Social, cultural, and personal factors related to success and failure in mate selection and marriage. Does not count for sociology major credit.

SYG 3011 Social Problems Through Film (3) AS SOC
PR: SYG 2000 or SYG 2010. Examines, through films, how sociologists define and study social problems, and investigates the role of the popular media in the construction of social problems. Explores the solutions aimed at social problems in a comparative, international perspective.

SYG 3235 Latina Lives 6A AF LW (3) AS SOC
PR: SYG 2000 or SYG 2010. An exploration of the experiences of Latinas in the United States. Uncover and examine such sociological themes as oppression, migration, work, family, activism, spirituality, and sexuality through short stories, poetry, and scholarly research.

SYO 3120 Sociology of Families (3) AS SOC
With a goal to understand American families in the present, this course will examine variations in family types by social class, race, ethnicity, and historical era. Exploration of current controversies about how families should be organized and about
SYO 3200 Sociology of Religion (3) AS SOC
PR: SYG 2000 or CI. An examination of the meanings of religion lived in experiences in the contemporary United States. Includes the construction and maintenance of religious meanings and communities, the impact of those meanings and communities on daily lives, use and impact of religious discourse in daily lives, social movements motivated by religious beliefs.

SYO 3530 Social Inequalities in a Global Society (3) AS SOC
Introduction to the major concepts and theories used to explain inequality. The topics of race, gender, and sexual orientation will be treated in relation to class, rather than as a parallel dimension of stratification.

SYO 4250 Sociology of Education (3) AS SOC
PR: SYG 2000 Application of sociological theory to the social institution of education. Primary attention directed toward the social organization of educational systems.

SYO 4300 Political Sociology (3) AS SOC
PR: SYG 2000 or CI. An examination of the social factors that affect government, politics, and political behavior.

SYO 4770 Occupations and Professions (3) AS SOC
PR: SYG 2000 or CI. A comparative analysis of professions, particularly medicine, law, teaching, allied health professions, engineering. Focus on the process of professionalizing service occupations like police work, business management, public administration and social work.

SYO 4400 Medical Sociology (3) AS SOC
PR: SYG 2000 or CI. The study of disease and the sick person including the analysis of health practices, beliefs, and practitioners, the hospital as an organization, the cost, financing, and politics of health care.

SYO 4430 Disability and Society MW (3) AS SOC
PR: SYG 2000 or CI. Examination of the applicability of sociological concepts to the experience of disability, and of disability as a means to a better understanding of the nature of social experience.

SYO 5365 Industrial Sociology (3) AS SOC
PR: SYG 2000 or CI. The exploration of the interactions, among and between people, and the people and institutions that form the boundaries through which sexualities are understood in the United States. Addresses interactions with and within medical and religious institutions, racial/ethnic cultures, families and popular culture.

SYP 3004 Constructing Social Problems (3) AS SOC
Examination of how activists, media, politicians, and scientists construct public images of social problems; analysis of the process of forming social policy and how public images of social problems shape characteristics of social service agencies.

SYP 3060 Sociology of Sexualities (3) AS SOC
Explores the interactions, among and between people, and the people and institutions that form the boundaries through which sexualities are understood in the United States. Addresses interactions with and within medical and religious institutions, racial/ethnic cultures, families and popular culture.

SYP 3562 Family Violence (3) AS SOC
An exploration of the complexity of the causes and consequences of physical and emotional violence among family members. Topics include the meanings and behaviors of violence, the process of help-seeking, and social interventions for offenders and victims. Open to non-majors.

SYP 4012 Emotions in Society (3) AS SOC
PR: SYG 2000 or SYG 2010. Examines the theories, concepts, and larger social contexts of emotions, and investigates sociological research on feelings such as anger and fear; pride and shame; love, friendship and sympathy; sadness and depression; grief and loss.

SYP 4111 Ideology and Community (3) AS SOC
This course is a sociological examination of the meanings of identity in the post-modern era. Topics will include the characteristics of identity at the levels of individuals, institutions, culture, and the processes of identity construction and change.

SYP 4420 Consumer Culture 6A MW LW (3) AS SOC
PR: SYG 2000 or CI. The exploration of how Americans’ purchasing behavior connects to larger historical shifts in our economy, including disenchantment, alienation, inequality, and the rise of the credit card society.

SYP 4510 Sociological Aspects of Deviance (3) AS SOC
The examination of the social construction of deviance: how deviance is defined, implications of deviance designations. Applications of theories of deviance to questions such as motivations of deviants and implications of criminal justice processing of deviants.

SYP 4530 Sociology of Juvenile Delinquency (3) AS SOC
Sociological issues in defining delinquency; the nature of adolescence and delinquency; sociological theories of the causes of delinquency, maintenance of delinquency, and consequences of social control applied to delinquents.

SYP 4550 Drugs and Society (3) AS SOC
PR: SYG 2000 or SYG 2010. Explores the social construction of substance use in the United States. Examines individual users and the popular perspectives on the causes of substance use and abuse such as the medical, psychoanalytic, and sociological models.

SYP 4640 Leisure in Society (3) AS SOC
Sociological examination of leisure in the United States and other countries. Topics include changing leisure time patterns, relationships between leisure and work, personality, family, community, subcultures, religion, and social class.

SYP 4650 Sport in Society (3) AS SOC
An examination of the broad issues concerning sport in both a historical and contemporary perspective. Sport will be viewed in relation to social institutions, economic considerations, mass media, and the sport group as a micro-social system.

TAX 4001 Concepts of Federal Income Taxation (3) BA ACC
PR: ACG 2021 and ACG 3341 with a grade of "C" or better (not C-). A study of federal taxation of income. Includes federal government including enactment of tax laws, basic tax research, preparation of basic tax returns and exploration of tax policy issues.

TAX 5015 Federal Taxation of Business Entities (3) BA ACC
PR: TAX 4001 with a grade of "C" or better (not C-). Tax issues encountered by small businesses. Includes tax planning, capital formation and preservation, tax compliance and tax alternatives.

THE 2005 Issues in Theatre FA (3) VP TAR
Focuses on the variety and range of contemporary performance using lecture, discussion, theatre attendance, and experiential learning. Encourages critical thinking and analysis of theatre in contemporary society. Restricted to non-theatre majors.

THE 2020 Introduction to Theatre (3) VP TAR
An introduction to the art of theatre as part of the larger context of the nature of art itself. The approach will be both chronological and multi-cultural. Required of all theatre majors.

THE 2252 Great Performances on Film FA (3) VP TAR
This class traces the evolution of artistic styles, from Lillian Gish to Samuel L. Jackson and beyond, focusing on the analysis of performance techniques, the history of cinema, and the social and political environment they parallel. No prerequisite.

THE 2305 Script Analysis (3) VP TAR
PR: THE 2020. This course teaches students the techniques of close reading of dramatic texts.

THE 3110 Theatre History I MW (3) VP TAR
Focuses on the most significant historical periods in American theatre. The study of theatrical production in its cultural context, including theatre architecture, scenography, acting and directing. No more than twelve hours of Theatre courses will be applied toward the Theatre major. Only one Theatre History course will count toward a Theatre major.

THE 3111 Theatre History II MW (3) VP TAR
PR: Sophomore standing, THE 2020. This course will focus on the Theatre History II major. The theatre History sequence will explore the theatrical development of the modern theater and its relationship to contemporary culture. This course is restricted to majors.

THE 4174 New British Theatre and Drama 6A MW LW (3) VP TAR
Focuses on THE 2305 and Junior Standing. A study of contemporary theatre and multi-cultural. Required of all theatre majors. Not open to Theatre students the techniques of close reading of dramatic texts.

THE 4180 Theatre Origins 6A MW LW (3) VP TAR
PR: THE 3110 or THE 4174 and one of the following: THE 4320, THE 4330, THE 4360, THE 4401, THE 4434, THE 4435, THE 4442, THE 4480. Open to senior non-majors with CI. An analysis of the development of theatre out of myth, ritual, and liturgy. Emphasis placed on Unit attempts to understand the resulting phenomena (e.g., Aristotle's Poetics) can teach us about the nature of our art. Either THE 4180 or THE 4562 is required of all theatre majors.

THE 4264 History Of Costume (3) VP TAR
PR: Sophomore standing. Open to upper level non-majors with CI. A survey of clothing and dress from Ancient Egypt to the 20th Century with an emphasis on cultural and social influences. (A requirement in the design track/costume.)
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THE 4266 Architecture And Decor (3) VP TAR
PR: Sophomore standing. Open to upper level non-majors with CI. A survey of architecture and furniture from ancient Egypt to the 20th Century. (A requirement in the design track/scenic.)

THE 4320 Theatre of Myth and Ritual/Northern European (950-1600) & Oriental (400-1200) MW LW (3) VP TAR
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. An investigation into the interrelationship of myth, ritual, and theatre. Considers northern European liturgical and secular drama as compared with Hindu, Chinese, and Japanese drama.

THE 4330 Shakespeare for The Theatre 6A MW LW (3) VP TAR
PR: THE 2305. A close study of selected plays with special emphasis on their performance values. Web-based version open to non-majors with CI; campus based version restricted to majors.

THE 4360 The 19th Century Theatre Revolution 6A LW (3) VP TAR
PR: THE 3110 or THE 3111. Opens to upper level non-majors with CI. Survey of the European art theatre revolution against the romantic realism of the commercial stage and its effect on subsequent theatre activity.

THE 4401 American Drama 6A MW LW (3) VP TAR
PR: THE 2305 and Junior Standing. A course in the function of the script for the theatre artist treating materials in the American Theatre. This class is restricted to majors only.

THE 4435 Theatre of Pluralism 6A MW LW (3) VP TAR
PR: THE 2305. CR: THE 3110 or THE 3111. Open to upper level non-majors with CI. This course is a study of plays and popular theatrical forms of the Caribbean. The student will investigate the social and political forces that shape the culture of the Caribbean, the residual effects of the colonialism and the turbulence of independence as expressed in the dramatic art and theatre of the English-speaking West Indies.

THE 4442 Comedy of The Classic And Neo-Classic Stage 6A LW (3) VP TAR
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. A study of comedic function in scripts from Greek and Roman, Restoration and French Neoclassic of the late 17th century and other plays from the late 18th and late 19th centuries which reflect similar characteristics.

THE 4462 Contemporary Performance Theory 6A MW LW (3) VP TAR

THE 4593 Honors Seminar (2) VP TAR
Enrollment limited to upper level majors who have been formally admitted to the department honors program. Not available S/U. Readings in the literature, history and theory of the stage in preparation for Theatre Honors Practicum. Past topics have included New German Theatre, Popular Theatre, New American Theatre, Jacobean Theatre.

THE 4594 Honors Practicum (3) VP TAR
PR: THE 4593. Honors Practicum grows out of the Honors Seminar and engages students in workshops or production with guest artists. Past artists have included: the Free Theatre of Munich, the San Francisco Mime Troupe, playwrights Eric Overmeyer, Jeff Jones and Gary Hill.

THE 4595 Honors Thesis (1-3) VP TAR
PR: THE 4593. A practical or written thesis related to the seminar and practicum and approved by the departmental honors committee.

THE 4761 Methods of Teaching Theatre for Adolescents (3) VP ED
Methods of effective drama and theatre instruction in middle school, junior and high schools, recreation centers, community, and professional theatres.

THE 4905 Directed Studies (1-4) VP TAR
Independent studies in the various areas of Theatre. Course of study and credits must be assigned prior to registration.

THE 4930 Selected Topics In Theatre (1-8) VP TAR
PR: CI. The content of the course will be governed by student demand and instructor interest. May be lecture or class discussion or studio format.

THE 5909 Directed Studies (1-6) VP TAR
PR: CI and CC. Independent studies in the various areas of Theatre. Course of study and credits must be assigned prior to registration.

THE 5931 Selected Topics In Theatre (1-8) VP TAR
PR: CI. The content of the course will be governed by the student demand and instructor interest. May be lecture or class discussion or studio format.

TPA 2200 Introduction to Technical Theatre I (3) VP TAR
CR: TPA 2290L or CI. An introductory course in technical production including stage lighting, costume construction, and sound. Required for Theatre majors. Requires sequential semester enrollment with TPA 2211 and TPA 2291L. Open to non-majors.

TPA 2211 Introduction to Technical Theatre II (3) VP TAR
CR: TPA 2291L or CI. An introductory course in technical production including stage lighting, costume construction, and sound. Required for Theatre majors. Requires sequential semester enrollment with TPA 2220 and TPA 2290L. Open to non-majors.

TPA 2280 Workshop In Stage Makeup (1) VP TAR
Beginning theory and practice in make-up for the stage. Open to non-majors. Theatre majors given preference. A studio course.

TPA 2290L Technical Theatre Lab I (1) VP TAR
CR: TPA 2200 or CI. A practical laboratory involving the pre-performance preparation of all technical aspects of a major production such as: painting, sewing, lighting, and sound. Students are assigned two areas of study per semester. Required of all Theatre majors. Open to non-majors.

TPA 2291L Technical Theatre Lab II (1) VP TAR
CR: TPA 2211 or CI. A practical laboratory involving the pre-performance preparation of all technical aspects of a major production such as: painting, sewing, lighting, and sound. Students are assigned two areas of study per semester. Required of all Theatre majors. Open to non-majors.

TPA 2292 Production Involvement I (1) VP TAR
PR: TPA 2200, TPA 2290L, TPA 2211, TPA 2291L or CI. The rehearsal, construction, and performance of major theatrical works. Assignments are made by a faculty committee following the students completion of a PI request form, available in the Theatre Office, and enrollment in this course.

TPA 3007 Introduction to Design I (3) VP TAR
PR: TPA 2200, TPA 2211, TPA 2290L, and TPA 2291L. Open to non-majors. This course will include lectures, demonstrations, individual student presentations, and studio activities. The course work will provide an introduction to the various aspects of design including: two and three dimensional design, basic presentation and visual communication skills, research, and project analysis/organization.

TPA 3008 Introduction to Design II (3) VP TAR
PR: TPA 3007. This course will include lectures, demonstrations, individual student presentations, and studio activities. The course work will provide an introduction to the various aspects of design including: two and three dimensional design, basic presentation and visual communication skills, research, and project analysis/organization. Open to non-majors.

TPA 3308 Drafting and CAD I (3) VP TAR
PR: TPA 2200, TPA 2211, TPA 2290L and TPA 2291L. The course will include lectures, demonstrations, individual student presentations, and studio activities. The course work will provide an introduction to the various aspects of design including: two and three dimensional design, basic presentation and visual communication skills, research, and project analysis/organization. Open to non-majors.

TPA 3321 Lighting: Theory And Practice (3) VP TAR
PR: TPA 3208 or CI. This intermediate lighting design course concerned with graphic presentations, color theory, design concepts, and practical experience with computer lighting systems. A requirement in the design track/lighting.

TPA 3321 Costume Construction (3) VP TAR
PR: TPA 3208 or CI. A practical course in the drafting of patterns for costuming the actor. Materials, skills, and techniques for construction of costumes and costume accessories will be treated. Included topics: terminology, footgear, jewelry, masks, armor, courtsey; both period and modern.

TPA 3325 Drafting and CAD II (3) VP TAR
PR: TPA 3206. Continuation of TPA 3208. The course will include lectures, demonstrations, field trips, individual student presentations, and studio activities. The course work will provide
faculties member through the process of developing and realizing crafts/skill areas. The student will be individually mentored by such areas as costume, lighting, and scenic design; stage production experiences to the advanced theatre design student in aspects of production. The course is intended to provide realized course.

PR: TPA 2292 or CI. The rehearsal, construction, and performance of plays for puppet theatre. Demonstration of and experience with materials used in the painting of stage scenery: media and practical course in the painting of stage scenery: media and application. A practical course in the working organizational function of the stage manager in theatre, dance, opera, and other live performance situations.

TPA 3840 Puppetry Performance And Production (4) VP TAR
PR: TPA 2200, TPA 2290L, TPA 2211, and TPA 2291L. Open to non-majors with CI. A practical laboratory involving the rehearsal and performance of a major production. Activities may include acting, directing, stage management, and the activities of the performance production crews. Placement by audition. If cast in production student must accept role. Required of all Theatre majors. May be repeated. Open to non-majors with CI.

TPP 4180 Advanced Scene Study (3) VP TAR
PR: TPP 4180 and audition or CI. Examination of the actor's craft systematically. This course will be team taught by the director of the performance production crews. Placement by audition. If cast in production student must accept role. Required of all Theatre majors. May be repeated. Open to non-majors with CI.

TPP 4193 Studio Theatre Performance II (1) VP TAR
PR: TPP 4110, THE 3111. A practical laboratory involving the rehearsal and performance of a major production. Activities may include acting, directing, stage management, and the activities of the performance production crews. Placement by audition. If cast in production student must accept role. Required of all Theatre majors. May be repeated. Open to non-majors with CI.

TPP 4311 Improvisation I (3) VP TAR
PR: TPP 2110. An intensive study in improvisation as an enhancement of the actor's skills. Exercises and theatre games as flexible forms which accommodate improvisation and physical invention are examined and used to develop group creativity.

TPP 3555 Scene Study I (3) VP TAR
PR: Audition and all core 2000 level courses. Identify and investigate the fundamental elements of action as applied to scene exploration, rehearsal, and presentation.

TPP 3230 Laboratory Workshop In Performance (3) VP TAR
PR: Audition and TPP 4111. An acting workshop focusing on application of character development and rehearsal techniques over a semester period leading toward a project showing at semester's end.
VIC 3943 Visual Communication Practicum (1) AS COM
PR: Senior standing and CI. For visual communications option majors. S/U only. Practical experience outside the classroom where the student works for academic credit under the supervision of a professional practitioner. Periodic written and oral reports to the faculty member coordinating the study.

WOH 3293 Islam in World History AF HP (4) AS HTY
This course examines the origins, spread, and development of Islam within the context of the main global historical processes and events of the past 1500 years.

WST 2250 Female Experience in America HP (3) AS WST
The female experience in America, in historical context, with an emphasis on women in families of various classes, races, and ethnic groups from colonial times to 1870.

WST 2600 Human Sexual Behavior SS (3) AS WST
The dynamics of human sexuality; biological, constitutional, cultural, and psychological aspects. The range of sexual behavior across groups. Sources of beliefs and attitudes about sex, including sex roles and especially human sexuality.

WST 3015 Introduction to Women's Studies SS AF (3) AS WST
Survey of major issues relevant to the female experience; the women's movement; historical, psychological, sociological, anthropological perspectives.

WST 3210 European Feminist History: Pre-18th Century 6A HP (3) AS WST
Survey of European feminist history prior to the 18th century (focusing primarily on Western Europe). Examines women's lives, roles, ideas, as well as origins of Western attitudes toward evaluation of power to gender, race, and class. No prerequisites.

WST 3220 European Feminist History: Enlightenment to the Present HP (3) AS WST
A survey of European feminist history from the 18th century through the 20th century (focusing primarily on Western Europe). Examines women's lives, roles, ideas, and do play in effecting environmental change; and analyze concepts related to ecofeminism.

WST 3311 Issues in Feminism SS (3) AS WST
Survey of major issues relevant to the female experience: marriage and the family, sexuality, work, creativity.

WST 3370 Women and Social Action SS (3) AS WST
Course focuses on ordinary women working collectively in diverse social settings to empower themselves and others to challenge gender stereotypes; to reduce harassment, poverty, and homelessness; to create spaces in which women can and do play in effecting environmental change; and analyze concepts related to ecofeminism.

WST 3620 Men and Sexism (3) AS WST
Ways in which sex role conditioning affects the lives of men. Factors in this conditioning and alternatives to masculine sex role models.

WST 4262 Literature by Women of Color in the Diaspora 6A LW (3) AS WST
Will not be counted toward the English major. An introduction to contemporary women writers of color in the U.S.; Native Americans, African Americans, Asian Americans, and Chicanas/ U.S. Latinas. Readings will include literature and contextual articles on historical and cultural issues.

WST 4310 History of Feminist Thought in the U.S. 6A MW (3) AS WST
A study of feminist critiques of American women's experiences and status, and their implications for women's lives, by 19th- and 20th-century theorists, and how adequately these various critiques challenge gender stereotypes; to reduce harassment, poverty, and homelessness; to create spaces in which women can and do play in effecting environmental change; and analyze concepts related to ecofeminism.

WST 4320 The Politics of Women's Health (3) AS WST
Explores current issues and concerns in the conceptualization and delivery of health information and health care for women from a feminist perspective with a special emphasis on ways in which we can inform and help ourselves.
ZOO 4512 Sociobiology MW (3) AS BIO
This course is restricted to seniors. Not for major’s credit. An analysis of Animal and human behavior such as sex, territoriality, and aggression in the context of evolution.

ZOO 4513 Animal Behavior (3) AS BIO
PR: PCB 3023 or PCB 3043 or PCB 3063 & CHM 2210 & MAC 1105 or higher-level MAC course or STA 2023. CP: CHM 2211. An introduction to comparative animal behavior, with analysis of types of animal behavior, their function and evolutionary origin. Lecture only.

ZOO 4603C Animal Embryology (4) AS BIO
PR: PCB 3023 and CHM 2210 and MAC 1105 or higher-level MAC course or STA 2023. CP: CHM 2211. Comparative approach to the study of tissues and the relation of their structure and function. Lecture and Laboratory.

ZOO 5456Ichthyology (3) AS BIO
PR: Senior or GS in Biology; ZOO 2701C, CI. PCB 4674 is suggested. Evolution, systematics, structure, behavior, physiology, and ecology of fishes.

ZOO 5456L Ichthyology Lab (1) AS BIO
CR/PR: ZOO 5456 Laboratory portion of Ichthyology relating to evolution, systematics, structure, behavior, physiology and ecology of fishes.

ZOO 5463C Herpetology (4) AS BIO
PR: CI. Major aspects of amphibian and reptilian biology emphasizing fossil history, evolutionary morphology, sensory physiology, life history and reproductive behavior. Lec.-lab. Field trip.

ZOO 5555C Marine Animal Ecology (4) AS BIO
PR: PCB 3043, senior standing, CI. Investigation of energy flow, biogeochemical cycles, and community structure in marine environments. Lec.-lab.