ACG 2021 Principles of Financial Accounting   (3) BA ACC
Study of basic accounting principles including the recording and reporting of financial activity. The preparation and interpretation of financial statements.

ACG 2071 Principles of Managerial Accounting   (3) BA ACC
PR: ACG 2021. A study of the accountant's role in assisting management in the planning and controlling of business activities.

ACG 3074 Managerial Accounting for Non-Business Majors   (3) BA ACC
Does not count towards major or CPA requirements. The study of the uses of accounting data internally by managers in planning and controlling the affairs of organizations.

ACG 3103 Intermediate Financial Accounting I   (3) BA ACC
PR: ACG 2021. Theory and methodology underlying financial reporting, including the FASB's conceptual framework, the accounting process, financial statements, accounting changes, present value applications, and current assets.

ACG 3113 Intermediate Financial Accounting II   (3) BA ACC
PR: ACG 3103. Continuation of ACG 3103. Topics covered include property, plant and equipment, intangibles, current liabilities, long-term debt, stockholders' equity, earnings per share computations, and investments.

ACG 3341 Cost Accounting and Control I   (3) BA ACC
PR: ACG 2071 or ACG 3103. Deals with accounting systems for different entities, cost behavior patterns, cost-volume-profit analysis, relevant information for decision making, and budgets and standard costs for planning and control.

ACG 3401 Accounting Information Systems   (3) BA ACC
PR: ACG 2021 and CGS 2100. Students who complete this course will not receive credit for ACG 4621. This course provides students with a basic understanding of well-controlled information systems in a variety of technological environments with added emphasis on placed on the collection, processing, and reporting of accounting information.
ADV 3103 Radio-Television Advertising (3) AS COM
PR: ACG 3113. Theory and practice of advertising revenue recognition, income tax allocation, leases, post-retirement benefits, error analysis, statement of cash flows, full disclosure, and other current accounting topics.

ADV 4351 Cost Accounting And Control II (3) BA ACC
PR: ACG 3341. Application of the material covered in ACG 3341 with specific emphasis on cost allocations, performance measurements, analysis of current cost accounting systems and accounting in today's environment (giving consideration to the influences of the international environment).

AEC 4621 Computer Control and Audit (3) BA ACC
PR: ISM 3113. Students who complete this course will not receive credit for ISM 4320 or ACG 3401. Study of information systems controls and auditing techniques emphasizing the effect both general and specific controls have on asset protection, data integrity, system effectiveness and efficiency in computerized business environments.

ADV 4632 Auditing I (3) BA ACC
PR: ACG 3113 and ACG 3401. This course provides a sound conceptual foundation of basic auditing from the perspective of the public accounting profession. Professional standards, ethics, legal responsibilities, and the utilization of technology are addressed.

AEC 4632 Auditing II (3) BA ACC
PR: ACG 4632. Further development of material covered in ACG 4632, with special emphasis on additional reporting topics and audit techniques not previously addressed.

ADV 4901 Independent Study (1-3) BA ACC
PR: Consent of Director. Individual study contract with instructor and director required. The research project will be mutually determined by the student and instructor.

ADV 4931 Selected Topics In Accounting (1-4) BA ACC
The course content will depend on student demand and instructor's interest.

ADV 5201 Advanced Financial Accounting IV (3) BA ACC
PR: ACG 4123 Accounting for business combinations, preparation of financial statements, home office/branch relationships, foreign operations and transactions, partnerships.

ACG 5501 Governmental/Not-For-Profit Accounting (3) BA ACC
PR: ACG 4123, CP: ACG 4632. Application of financial and managerial accounting, and auditing, principles and theory to both governmental and not-for-profit entities.

ACG 5675 Internal and Operational Auditing (3) BA ACC
PR: ACG 3113 and ACG 3401. CP: ACG 4632. The objective of Internal and Operational Auditing is to provide students with an opportunity to learn about the theory and practice of Internal and Operational Auditing and to apply relevant audit principles and techniques to solved audit problems.

ACG 5935 Selected Topics in Accounting (1-4) BA ACC
PR: CI. To allow advanced undergraduate students and graduate students to research and study contemporary and emerging topics in the field. Rpt. To 6 hours.

ADE 4384 Working With the Adult Learner (3) ED EDV
An investigation of the needs of the adult learner. Identification of principles of adult learning; physiological, psychological, and social characteristics of adult learners, and corresponding implications are explored.

ADV 3000 Introduction to Advertising (3) AS COM
PR: MMC 2100 and MMC 3602. A study of the structures, functions, and persuasive language of advertising in mass media with attention to social, political, economic, and legal aspects.

ADV 3101 Advertising Copywriting (3) AS COM
PR: ADV 3000 and ECO 1000. Study of laboratory experience in preparation of copywriting for newspapers, magazines, radio, television, direct mail, outdoor displays, specialty items, and interactive electronic media.

ADV 3103 Radio-Television Advertising (3) AS COM
PR: ADV 3000. An intensive study and analysis of radio and television for advertising purposes, including copywriting, script and storyboard preparation, time buying and selling techniques, audience research methods, and basic production concepts.

ADV 3200 Advertising Design (3) AS COM
PR: ADV 3000 (for advertising sequence majors) or VIC 3001 (for other Mass Comm majors). Application of graphic design principles to various areas of advertising. Combining visual and verbal elements effectively.

ADV 3300 Advertising Media Strategy (3) AS COM
PR: ACG 3074, ADV 3060, and ECO 1000. Problems, techniques, strategy of media research, planning, budgeting and effective utilization in advertising.

ADV 3501 Advertising Research (3) AS COM
PR: ADV 3000. Overview of scientific research methods as used in advertising. Emphasis on the acquisition, analysis, and evaluation of primary and secondary data, and the principles of survey and experimental research.

ADV 3700 Retail Advertising Planning and Execution (3) AS COM
PR: ADV 3000 and ADV 3101. A study of retail advertising, including management decisions, processes, procedures, media planning, production techniques, and problems affecting the development of advertising to fulfill retail objectives.

ADV 4600 Advertising Management (3) AS COM
PR: ADV 3000, ADV 3101, ADV 3300. Application of analytical planning concepts to advertising planning and decision-making. Case study method used to explore advertising and promotional programs; media and creative strategies; consumer, retail, industrial, and public service applications.

ADV 4800 Advertising Campaigns (3) AS COM
PR: ADV 3101, ADV 3300, ADV 3501, ECO 1000, and MAR 3023. Advanced advertising course requiring planning and production of complete general advertising campaign, including research, production methods, budgeting and media schedules.

ADV 4940 Advertising Practicum (1) AS COM
PR: CI. For advertising 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.

AFA 4000 Introduction to the Black Experience [In Africa and Its Diaspora] 6A AF (3) AS AFA
Fundamental perspectives on the nature and significance of the Black Experience in Africa and the black communities in the Americas.

AFA 4150 Africa and the United States 6A SS HP AF (3) AS INT
An examination of the historical and current political, economic, and cultural relations between the United States and Africa.

AFA 4200 Slavery in the Americas and the Caribbean MW (3) AS AFA
This course examines the institution of enslavement in North, South, and Central America, and the Caribbean. It takes an interdisciplinary approach in exploring the social, political, and economic underpinnings of slavery.

AFA 4313 Black English MW (3) AS AFA
PR: Junior or Senior standing. This course focuses on linguistic patterns among African Americans in the U.S., South and Central America, and the Caribbean. It examines language in relation to issues of domination, social stratification, economics and political techniques of empowerment.

AFA 4333 Social Institutions and the African-American Community (3) AS AFA
A study of social institutions as they relate to the African-American Community, with emphasis on social systems operating within and on the African-American community.

AFA 4335 Black Women in America 6A MW (3) AS AFA
An interdisciplinary survey of the contemporary experience of black women in America, including the African roots, myths, and realities surrounding that experience. (May also be taken for credit in Africana Studies.)

AFA 4350 African American Community Research MW (3) AS AFA
The interactive, field experience course introduces students to active and applied research methodologies and the uses of this research in Black urban communities.

AFA 4400 Middle Passage and the African HP (3) AS AFA
The Middle Passage focuses on the trafficking of African peoples from Africa to destinations in the Americas and Europe. Emphasis is placed on the capture, detention, and transport of Africans, and the response to the trafficking by African societies.

AFA 4900 Directed Readings (1-3) AS AFA
PR: CI. Independent readings in a particular area of African and Afro-American Studies, selected by student and instructor.

AFA 4910 Selected Topics in Africana Studies (3) AS AFA
Topics offered are selected to reflect student needs and faculty interests. In depth study in such areas as the Black Student and the African-American Educational Process; the Black Experience in the Americas; European Expansion in Africa to 19th century; Contemporary Economic Problems in Africa.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
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<tbody>
<tr>
<td>AFR 4211</td>
<td>National Security Forces in Contemporary America I (3) US AFR</td>
<td>Study of the Strategic offensive and defensive forces, general purpose forces, and aerospace support forces that make up the Air Force of today.</td>
</tr>
<tr>
<td>AFR 4201</td>
<td>National Security Forces in Contemporary America II (3) US AFR</td>
<td>An integrated management course emphasizing the individual as a manager in an Air Force milieu. The individual motivational and behavioral processes, leadership, communication, and group dynamics are covered to provide a foundation for the development of the junior officer's professional skills as an Air Force officer (officer). The basic managerial processes involving decision making, utilization of analytic aids in planning, organizing, and controlling in a changing environment are emphasized as necessary professional concepts.</td>
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<tr>
<td>AFS 3153</td>
<td>African Literature Survey (3) AS AFA</td>
<td>This course will examine the historical and geographical distribution of Africans in the diaspora and the political economic roles they have played in the development of the Western world, with a focus on the Americans. The course takes an interdisciplinary approach. The course is not restricted to majors and is not repeatable for credit.</td>
</tr>
<tr>
<td>AMH 3110</td>
<td>American Colonial History to 1750 (4) AS HTY</td>
<td>A comprehensive study of American society and political culture from 1700-1826. Focuses on demographic trends, party systems, social movements, urbanization, and political activity in the antebellum era.</td>
</tr>
<tr>
<td>AMH 3140</td>
<td>The Age of Jefferson (4) AS HTY</td>
<td>The United States from 1828-1850, with emphasis on social and political conflict. Consideration of evangelicalism, reform, labor movements, urbanization, and political activity in the antebellum era.</td>
</tr>
<tr>
<td>AMH 3170</td>
<td>The Civil War and Reconstruction (4) AS HTY</td>
<td>An examination of military, political, and economic climate of the 1860s from Civil War to Reconstruction. The course focuses on the war itself in its military, diplomatic, and political consequences through the end of the Reconstruction (1877).</td>
</tr>
<tr>
<td>AMH 3201</td>
<td>The United States, 1877-1914 (4) AS HTY</td>
<td>A study of America from the end of Reconstruction to World War I. Ranging over political, social, and international developments, the course covers industrialization, immigration, unions, reform, feminism, race relations and imperialism.</td>
</tr>
<tr>
<td>AMH 3231</td>
<td>The United States, 1914-1945 (4) AS HTY</td>
<td>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.</td>
</tr>
<tr>
<td>AMH 3270</td>
<td>The United States Since 1945 (4) AS HTY</td>
<td>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.</td>
</tr>
<tr>
<td>AMH 3403</td>
<td>The South since 1865 (4) AS HTY</td>
<td>Southern history since the surrender at Appomattox. Topics covered include Reconstruction, the Populist revolt, race relations, demagogy, and disenchancement, Southern women, and the Civil Rights Movement.</td>
</tr>
<tr>
<td>AMH 3421</td>
<td>Early Florida (4) AS HTY</td>
<td>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.</td>
</tr>
<tr>
<td>AMH 3423</td>
<td>Modern Florida (4) AS HTY</td>
<td>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.</td>
</tr>
</tbody>
</table>
AMH 3500 American Labor History (4) AS HTY
A study of workers from the American 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 who came to the United States from 1800 to the 1890s. Examines the world background 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 practices 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, immigration, wars, religion and reform movements will be examined. (May also be taken for credit in Women's Studies.)

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. (May also be taken for credit in Women's Studies.)

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, with an emphasis on North America from 1865 to the present. Topics include reconstruction, World War I, World War II, and the Civil Rights Movement.

AMH 3800 History of Canada (4) AS HTY
A study of Canadian experience from its French origins through the British conquest to its present multi-racial character. Attention will also be given to the forces of nationalism, separatism, and regionalism.

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 authors as Cooper, Irving, Bryant, Hawthorne, Emerson, Melville, Thoreau, and Poe, among others.

AML 3032 American Literature From 1860 to 1912 (3) AS ENG
A study of representative works of selected American Realists and early Naturalists, among them Whittman, 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 3453 Historical Perspectives in Early American Literature HP (3) AS ENG
Examines the evolution 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 African 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 4212 Twentieth-Century American Novel (3) AS ENG
A study of major trends and influences in American prose fiction from 1900 to the present. Includes 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 works of the "Southern Renaissance," including writers such as Faulkner, Wolfe, Caldwell, Hellman, Cunningham, O'Connor, Warren, Styron, Tate, Davidson, and Dickey.

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 renowned Florida writer.

AML 4330 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 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 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 2041 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 2212 Nineteenth-century 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 2270 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 2363 Issues in American Civilization (1-4) AS AMS
An examination of selected topics such as natural environment and the quality of life, sports and American society, popular music, American communities, vigilante tradition, jazz music, role of the family, American success myth, youth in America. Topic varies.

AMS 3001 American Culture 1880-1915 6A HP (4) AS AMS
Integration of major aspects of American life between the 1880s and World War I.

AMS 3210 Regions of America HP (4) 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 (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 6A HP (4) 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 3370 Southern Women: Myth and Reality 6A HP (3) AS AMS
This course will identify the myths surrounding Southern Women, discern their sources and purposes, and contrast them with history.

AMS 3601 Material Culture and American Society SS HP (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 other groups. Since this is a seminar course, its content will also be studied.

AMS 3700 Racism in American Society SS HP (3) AS AMS
An introduction into the causes and effects of racism in American history, literature, art, the media, and folklore. Related concepts of ethnocentrism and class bias will also be studied.

AMS 3930 Selected Topics in American Studies (1-4) AS AMS
Offersings include Cultural Darwinism in America, America Through Foreign Eyes, and The Female Hero in American Culture.
ANT 3610 Anthropological Linguistics  (3) AS AMS
Section contributions to the 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. Instructor approval prior to registration.

AMS 4804 Major Ideas in America  MW (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 texts. Topic varies.

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

AMS 4930 Selected Topics in American Studies  (1-4) AS AMS
PR: Senior in American Studies or CI. Offerings include the social implications of American painting, Technology in Twentieth Century America, American Environmental Problems, Popular Culture in America, American Military Experience, and Labor in America.

AMS 4935 Senior Seminar in American Studies  (4) AS AMS
PR: Senior in American Studies or CI. Course is to be chosen by students and instructor.

AMS 4940 Internship in American Studies  (1-4) AS AMS
A structured, out-of-class learning experience designed to provide first-hand, practical training in careers related to American Studies.

ANG 4102 Directed Reading  (1-4) AS ANG

ANG 5910 Individual Research  (2-4) AS ANG
PR: DPR. Contract required prior to registration. S/U. Individual guidance in selected research project.

ANG 5937 Seminar In Anthropology  (2-4) AS ANG
PR: Senior or Graduate. Topic to be chosen by students and instructor.

ANT 1001 The Human Adventure  (3) AS ANT
Not for major credit. This course examines the anthropological evidence relevant to controversial questions concerning human origins, some prehistoric, human and animal communication, and ancient societies.

ANT 1149 Fantastic Archaeology: Mysteries of the Human Past  (3) AS ANT
Not for major credit. Mysteries of the human past, including the Lost Continent of Atlantis, Ancient Astronauts, the “Myth” of the Moundbuilders, and the Shroud of Turin will be discussed in detail. The practice of archaeology and how we know about the past will also be presented, and skills in critical thinking will be emphasized.

ANT 2000 Introduction to Anthropology  SS AF (3) AS ANT
The cross-cultural study of the human species in biological and social perspective. Surveys the four major branches of anthropological study: physical anthropology (human biology), archaeology (the analysis of the prehistoric and historic remains of human cultures), anthropological linguistics (the analysis of language in its cultural context), and cultural anthropology (the cross-cultural study of peoples living in the world today, be they in tribal, peasant, or urban societies).

ANT 2410 Cultural Anthropology  SS AF (3) AS ANT
PR: ANT 2000 or DPR. Discussion of major methods of and orientations to the cross-cultural study of the world's peoples. Representative case studies are used to demonstrate variations in human adaptations and to encourage an appreciation of diverse values and lifestyles.

ANT 2511 Biological Anthropology  NS (3) AS ANT
PR: ANT 2000 or DPR. Non-human primates, the fossil record and the biology of races are surveyed in order to understand the human animal as a product of biosocial phenomena. Anatomy, genetics, culture and evolution are emphasized.

ANT 3005 The Anthropological Perspective  AF (3) AS ANT
For non-anthropology majors only. May not be counted for credit toward an anthropology major. Presents the basic concepts of anthropology as they are relevant to contemporary life. Aims at enabling the student to understand the anthropologist's cross-cultural view of the human species as adapting through biosocial processes to life on this planet.

ANT 3101 Archaeology  SS (3) AS ANT
PR: ANT 2000 or DPR. The cross-cultural study of humankind from its beginnings up to and including the historic period through the research, description, and analysis of the remains of past cultures and societies.

ANT 3610 Anthropological Linguistics  SS (3) AS ANT
PR: ANT 2000 or DPR. The comparative study of language in its cultural context, especially emphasizing the role of language in the cultural interpretation of physical and social reality.

ANT 4034 Theories of Culture  (3) AS ANT
PR: DPR. Senior standing with major in anthropology or equivalent. The major concepts that form the anthropological view of humanity are viewed in historical perspective. Basic ideas of the western philosophical tradition are analyzed from the Greeks to the 19th century, and when they became incorporated into the new discipline of anthropology, 20th century anthropological developments on these themes are considered.

ANT 4142 Old World Archaeology  (3) AS ANT
PR: ANT 3101 or DPR. The archaeology of Europe, Asia and Africa, from the earliest humans through the emergence of state-level societies in many parts of the Old World. The course will focus on comparative aspects of economic, social, political, and religious organization in the prehistoric Near East, Egypt, China, the Aegean, Europe and Africa.

ANT 4143 European Archaeology  (3) AS ANT
PR: ANT 3101 or DPR. The archaeology of Europe, from the first Palaeolithic inhabitants to the fall of Roman civilization. The course will focus on ancient material culture while emphasizing social and economic questions such as the emergence of modern humans, the adoption of agriculture, the development of complex societies, and the rise of civilization.

ANT 4147 Environmental Archaeology  (3) AS ANT
PR: ANT 3101 or DPR. This course examines environmental constraints on ancient human societies, and how human activities have impacted the environment in the last several thousand years. Presentation of the methods used to reconstruct prehistoric environments will be followed by case studies from Florida, Central and South America, Easter Island, the Mediterranean and the Near East.

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 beginnings through the development of aboriginal culture to the period of European conquest. Emphasis on 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 or 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 burial 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 chronology sequence from its beginnings through Protobiblic development is described and analyzed. Cultures such as the Maya, Aztec, Mixtec, Zapotec, Olmec, and Toltec are included, with emphasis on the environmental setting and the relationship between cultural ecology and the growth of civilization.

ANT 4165 South American Archaeology  (3) AS ANT
PR: ANT 3101 or DPR. The culture history and culture process sequence of cultural development in prehistoric South America. Cultures such as the Inca, Chavin, Mochica, Wari, Chimú are included. Emphasis on the environmental setting and the relationship between cultural ecology and the growth of civilization.

ANT 4172 Historical Archaeology  6A (3) 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 coursework.

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 session. 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 or DPR. This course focuses on the application of scientific methods 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. Ritual 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 4285 Oral History (3) AS ANT
PR: ANT 2410 or DPR. A survey of the history, methods, and current applications of history research, primarily in the anthropological study of culture, but with reference to allied disciplines. Students 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 today.

ANT 4312 North American Indians (3) AS ANT
PR: ANT 2410 or DPR. An examination of the evidence for the origin and early culture of American Indians, and of patterns of regional development up to the period of contact with European colonists. Emphasis on Indian ecological, social, political and religious systems, accentuated and worldviews, folklore, and visual art.

ANT 4316 Ethnic Diversity in 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 or DPR. 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. Main themes include the depopulation of the original population and the resettlement of the area via slavery, indenture, and migration; contemporary ethnic heterogeneity; economic problems of Third World microstates; 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 perception of the visual ethnographic study that expresses what the "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 and among countries as well as into 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 the roles and models of personality development with special reference to their applicability to the emerging field of cross-cultural mental health planning.

ANT 4442 Urban Life and Culture (3) AS ANT
PR: ANT 2410 or DPR. The cross-cultural study of urbanization, urbanism and human problems associated with modern 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 Cross-Cultural Research (3) AS ANT
PR: DPR. The stages in the development and execution of ethnological research are discussed and practiced. Literature search, hypothesis formation, selection of data collection techniques, data analysis, and report presentation are stressed. Research design models from the case literature are studied and supervised research in the local community is designed and carried out.

ANT 4500 Forensic Anthropology (3) AS ANT
PR: ANT 2511 or DPR. A detailed overview of forensic anthropology, skeletal variation, techniques of determining sex, age, population affiliation, aspects of osteological individuality and identification, and anthropological application of biological evidence. Open only.

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. Biological patterns and cultures of the past are also covered.

ANT 4587 Human Variation (3) AS ANT
PR: ANT 2511 or DPR. An overview of evolution and biological variations of human races. Anatomical, morphological, and physiological patterns are surveyed geographically. Cultural influences on racial biology are explored.

ANT 4620 Language and Culture 6A (3) AS ANT
PR: ANT 3610 or DPR. Examines the relationships between language and culture in cross-cultural perspective. Explores the extent to which languages shape the world views of their speakers. Emphasis on the nature and degree of fit between linguistics and other cultural systems. Students are surveyed.

ANT 4701 Applied Anthropology (3) AS ANT
PR: ANT 2410 or DPR. A review of approaches applying the anthropological perspective to contemporary human problems. Emphasis placed on public policy issues in United States society. Discussion of the historical development of applied anthropology, problems of economic development of the Third World, and the ethics of applied research and intervention.

ANT 4750 Language and Social Interaction 6A (3) AS ANT
PR: ANT 3610 or DPR. Examines the role of language and other modes of communication in the social settings of speech communities. Student field projects focus on the cross-cultural description and analysis of patterns of communication in ethnographic contexts.

ANT 4824 Archaeological Field Methods (4-12) AS ANT
PR: ANT 3101, DPR. Offered as part of a summer or other semester field session. May or may not be combined with Florida Archaeology and Laboratory Methods in Archaeology. Students learn appropriate methods of archaeological survey, excavation, data and materials recovery, recording, and processing.

ANT 4901 Directed Reading (1-4) AS ANT

ANT 4905 Individual Research (2-4) AS ANT
PR: DPR. S/U only. Individual guidance in a selected research project. Contract required prior to registration.

ANT 4930 Special Topics in Anthropology (3) AS ANT
PR: DPR. Topics to be chosen by students and instructor permitting newly developing disciplinary special interests to be explored.

ANT 4932 Honors Seminar (4) AS ANT
PR: Admission to the honors program in anthropology and DPR. Seminar designed to provide the honors student with an opportunity to present, discuss and defend his/her own research and to explore in-depth topics in several areas of anthropology.

ANT 4935 Rethinking Anthropology 6A (3) AS ANT
PR: Senior standing with major in anthropology. Through discussion of readings and student papers, students reexamine and reevaluate anthropology as a discipline and the integration of its branches and specializations. Students develop and articulate their current images of anthropology.

ANT 4970 Honors Thesis (3) AS ANT
PR: Admission to the honors program, completion of the honors seminar and DPR. S/U only. Students are required to earn a minimum grade of B in the course. Successful completion of the Proseminar fulfills the comprehensive examination requirement.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Units</th>
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<tr>
<td>ARC 5216</td>
<td>The Building Arts</td>
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<tr>
<td>ARC 5175</td>
<td>Computer Technology</td>
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<tr>
<td>ARA 4905</td>
<td>Directed Study</td>
<td>1-5</td>
<td>AS</td>
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<td>ARA 2201</td>
<td>Modern Arabic IV</td>
<td>4</td>
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<td>ARA 1121L</td>
<td>Modern Arabic II Laboratory</td>
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<tr>
<td>ARA 1121</td>
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<tr>
<td>ARA 1120</td>
<td>Modern Arabic I</td>
<td>4</td>
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<td>WLE</td>
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<tr>
<td>ARC 5731</td>
<td>Architectural History I</td>
<td>3</td>
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<tr>
<td>ARC 5730</td>
<td>Architectural History II</td>
<td>2-4</td>
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<tr>
<td>PR: ARC 5200 or the equivalent. Continue with ARC 5200. Practice of writing, reading, and speaking for language students who intend to attain basic proficiency.</td>
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<tr>
<td>ARC 4965</td>
<td>Directed Study</td>
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<tr>
<td>PR: ARC 5200 or the equivalent. Continue with ARC 5200. Practice of writing, reading, and speaking for language students who intend to attain basic proficiency.</td>
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<tr>
<td>ARA 4930</td>
<td>Selected Topics</td>
<td>1-5</td>
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<td>WLE</td>
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<tr>
<td>CP: ARA 1120L. An intensive study of basic skills: pronunciation, listening comprehension, speaking and some composition.</td>
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<tr>
<td>ARC 4784</td>
<td>The City 6A MW</td>
<td>3</td>
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<tr>
<td>PR: ARA 1120 or its equivalent. CP: ARA 1120L. A continuation of ARA 1120. More sophisticated oral/aural skills are attained. Basic reading skills are acquired.</td>
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<tr>
<td>ARC 5175</td>
<td>Computer Technology</td>
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<tr>
<td>PR: CC. Introduction to the application of computer technology in current architectural practice. The exploration of available software, programs, and computer services for word processing, information handling, specification writing, feasibility analysis, cost estimating, economic performance, and life cycle cost analysis, project management (network programming and analysis), computer graphics, and design and drafting.</td>
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<tr>
<td>ARC 5216</td>
<td>The Building Arts</td>
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<tr>
<td>PR: CC. Introduction to the man-made environment. The study and prediction of architecture. The various facets of the process of shaping the built environment as it manifests itself in the different roles and specialization of the experts involved the process, and in the various academic courses that prepare the architect for practice.</td>
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<tr>
<td>ARC 5256</td>
<td>Design Methods</td>
<td>3</td>
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<tr>
<td>PR: Calculus. Survey of major schools of thought in design theory, methods of design and problem-solving, and design research. The nature of the design activity and its recurring difficulties. 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.</td>
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<tr>
<td>ARC 5361</td>
<td>Architectural Design I</td>
<td>6</td>
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<tr>
<td>PR: CC. First of 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 use it as a basis for design exploration. Graphic documentation, diagramming, and model studies are stressed.</td>
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<tr>
<td>ARC 5362</td>
<td>Architectural Design II</td>
<td>6</td>
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<tr>
<td>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 use it as a basis for design exploration. Graphic documentation, diagramming, and model studies are stressed.</td>
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<tr>
<td>ARC 5363</td>
<td>Architectural Design III</td>
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<tr>
<td>PR: ARC 5362, ARC 5216, ARC 5467, ARC 5587, ARC 5731, ARC 5689, CC. 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 to ordering design to develop solutions for a particular 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.</td>
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<tr>
<td>ARC 5364</td>
<td>Architectural Design IV</td>
<td>5</td>
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<tr>
<td>PR: ARC 5363, CC. 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 handicapped persons, fire escape, etc.</td>
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<tr>
<td>ARC 5365</td>
<td>Architectural Design V</td>
<td>5</td>
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<tr>
<td>PR: ARC 5362, ARC 5364, ARC 5467, ARC 5588, ARC 5689, ARC 5782, CC. Investigation of the interaction between user requirements, environmental determinants, site and urban context conditions, technological factors, and design intentions in the development and 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 and the interface between interior and exterior. Group study of these relationships and systems in diagrams and models, and their manifestation in design and construction details.</td>
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<tr>
<td>ARC 5366</td>
<td>Architectural Design VI</td>
<td>5</td>
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<tr>
<td>PR: ARC 5365, CC. Design of multi-purpose buildings of medium to large scale and complexity. Issues of community and neighborhood design as they relate to the design 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.</td>
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<td>ARC 5467</td>
<td>Materials and Methods of Construction</td>
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<tr>
<td>PR: ARC 5470, CC. Overview of properties 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.</td>
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<tr>
<td>ARC 5470</td>
<td>Introduction to Technology</td>
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<tr>
<td>PR: 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.</td>
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<tr>
<td>ARC 5587</td>
<td>Structures I</td>
<td>3</td>
<td>AR</td>
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<tr>
<td>PR: Calculus, Physics, and ARC 5760, 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 and column behavior.</td>
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<tr>
<td>ARC 5588</td>
<td>Structures II</td>
<td>3</td>
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<tr>
<td>ARC 5660</td>
<td>Environmental Technology</td>
<td>4</td>
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<tr>
<td>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, transmission, transport, and acoustics. Lab exercises include computer simulations, illumination studies, thermal performance studies.</td>
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<tr>
<td>ARC 5731</td>
<td>Architectural History</td>
<td>3</td>
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<tr>
<td>PR: Overview of the built environment from the prehistoric 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.</td>
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ARC 5732 Architectural History II  (3) AR ARC
Overview of architectural art from the Renaissance to the present. Buildings and cities in their geographical, topographical, cultural, political, aesthetic, social, technological, and economic context. Students will be introduced to the history of architectural art, and development of students' own approach. Emphasis will be on the environment of Europe and America.

ARC 5789 Modern Architecture History  (3) AR ARC
PR: CC. CI. Exploration of the philosophic, economic, aesthetic, social, historical, and moral imperatives used by modern architects and historians in their attempt to design the appropriate physical environment for a new social order. The course will investigate the writings and works of the proponents of the modern style of architecture and how they studied the "New Architecture" as defined by those who broke tradition and expressed the new era using modern construction materials and techniques.

ARC 5793 History Abroad  (3) AR ARC
PR: CC. Summer study abroad. Location and description varies from year to year.

ARC 5920 Architectural Design Studio Abroad  (5) AR ARC
PR: CC. Summer study abroad. Location and description varies from year to year.

ARC 5931 Special Studies in Architecture  (1-5) AR ARC
PR: CC. Variable titles offered on topics of special interest.

ARE 3044 Experiential Basis of Artistic Mind  (3) FA ART
PR: DPR. Specialized intensive studies in art history. Specific subject matter varies. To be announced at each course offering.

ARE 3354 Art Teaching Strategies I  (3) FA ART
PR: ARE 3044. A combination of theory, philosophy and practice in art education, exploration and experimentation of/with unique community spaces, populations and new environments for and learning in the arts.

ARE 4037 Senior Seminar in Art Education  (2) FA ART

ARE 4112 Education Through Crafts  (3) FA ART
An in-depth study of arts and craft media for children. Emphasis will be placed on innovative use of new materials and curriculum in school restructuring.

ARE 4313 Art For the Child and You  (2) FA ART
Art and the intellectual, creative, emotional, and aesthetic growth of children.

ARE 4440 Art Teaching Strategies II  (3) FA ART
Media and the learning process will be explored through photographic arts, cinematography and video systems. Teaching strategies and media criticism for application at elementary and secondary levels.

ARE 4443 Crafts Workshop in Art Education  (3) FA ART
PR: ARE 3044. The study and practice of processes and media involved with the exploration and expression of cultural traditions and individual inquiry through crafts.

ARE 4642 Community Arts  (3) FA ART
PR: ARE 3044. Explores the arts as infrastructure through identification, exploration and experimentation with unique community spaces, populations and new environments for and learning in the arts.

ARE 4909 Directed Study: Art Education  (1-3) FA ART
PR: Senior standing. Directed study contract required. Designed to extend teaching competencies in the field of art education.

ARE 4940 Internship: Art Education  (1-12) FA ART
CP: ARE 4037. 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.

ARH 2050 History of Visual Arts I  HP FA (3) FA ART
A survey of World Art to AD 1300. Students are introduced to problems of analyzing and interpreting the art of various cultures without making the Western perspective a privileged one. Open to non-majors.

ARH 2051 History of Visual Arts II  HP FA (3) FA ART
A comprehensive study of art since 1300. Students are introduced to problems of analyzing and interpreting the art of various cultures without making the Western perspective a privileged one. Open to non-majors.

ARH 3001 Introduction To Art  HP FA (4) FA ART
An expanded introductory treatment of basic concepts. For art majors and non-art majors.

ARH 3454C Contemporary Issues in Art  HP FA MW (4) FA ART
Focuses upon the productions, themes and processes of artists working in the present time. This course will investigate the relationship of materials and media used by contemporary artists to the subject and content of artists' productions/products as well as conceptual processes.

ARH 4170 Greek And Roman Art  (4) FA ART
A comprehensive study of Aegaeon, Mycenaenae, Etruscan, Greek art and sculpture, Roman painting and architecture.

ARH 4200 Medieval Art  (4) FA ART
A comprehensive study of early Christian, Byzantine and Medieval painting, sculpture, architecture and manuscript illumination.

ARH 4301 Renaissance Art  (4) FA ART
A comprehensive study of Renaissance and Manerist painting, sculpture and architecture in Italy and Northern Europe.

ARH 4318 Venetian Art  (4) FA ART
PR: DPR. Major monuments of Venetian art are examined to elucidate the importance of Venice as the crossroads of cultural exchange between Islam, Byzantium, and West, and the importance of Venetian art for the history of art and art criticism.

ARH 4350 Baroque And Rococo Art  (4) FA ART
A comprehensive study of the painting, sculpture and architecture in France, Italy, Spain and the Netherlands in the seventeenth and early eighteenth centuries.

ARH 4430 Nineteenth Century Art  (4) FA ART
A comprehensive study of nineteenth century painting, sculpture and architecture in America and Europe. Gender/multicultural issues and methodologies in 19th century art are emphasized.

ARH 4440 Twentieth Century Art  (4) FA ART
A comprehensive study of painting, sculpture and architecture from Cezanne to the present in Europe and the United States. Required of all art majors.

ARH 4552 Modern Political Iconography  MW (4) FA ART
PR: DPR. The course explores art in which political themes are considered to be the source and determinant of aesthetic decisions. The dominant iconographic theme is the iconography of revolution, rebellion, and other forms of political struggle in 20th Century art and film.

ARH 4554 Japanese Prints  (4) FA ART
PR: DPR. This course examines one important aspect of Asian artistic production. Buddhist Art begins in India and travels via the Himalayas and Southeast Asia to East Asia, touching on artistic expression of major principles and practices, changes in art as the religion comes in contact with pre-existing cultures, and modern artistic practice.

ARH 4554 Japanese Prints  (4) FA ART
PR: DPR. This course examines one important aspect of Asian artistic production. "Japanese Prints" concentrates on the period from 1615 to the present and distinguishes styles, schools, artists, subjects, patronage patterns, and technical matters. The role of print within society and the Western art is examined throughout.

ARH 4557 Chinese Art  (4) FA ART
PR: DPR. Chinese Art proceeds chronologically, from the Neolithic era up to the contemporary art world. The course considers cultural, social, political, cultural, religious and political influences on the art works produced by this ancient society.

ARH 4710 History of Photography  6A MW (4) FA ART
PR: DPR. 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 4721 Graphicstudio/ History of Media: Printmaking  (3) FA ART
The history of Western printmaking from the Middle Ages to contemporary times, with an emphasis on artmaking technology and research, cultural perspectives and theoretical/critical analytical capabilities. The course is open to majors and non-majors. It is not repeatable for credit.

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

ARH 4790 Selected Topics In The History of Film  (4) FA ART
PR: DPR. Specialized intensive studies in art history. Specific subject matter varies. To be announced at each course offering.
ART 4930 Art History: Selected Topics (2-4) FA ART
Lecture/discussion course designed to offer areas of expertise of visiting scholars or specific interests of resident faculty.

ART 4937 Seminar In The History Of Art History (4) FA ART
PR: Four courses in Art History at the 4000 level, DPR. An examination of the concepts of Art History through the course is the emphasis for the study and changing nature of Art History from Vasari to the present.

ART 5451 Cultural and Intellectual History of Modern Art (4) FA ART
PR: A course in which theories of modern artists and of critics and historians of Modernism are treated as a part of general cultural and intellectual history.

ART 5795 Methods of Art History (4) FA ART
May be taken during the student's first two semesters in the M.A. program. This course introduces students to various methods which art historians have used to analyze the form and content of individual works of art, and to various modes of historical explanation.

ART 5797 Gallery And Museum Internship (2-6) FA ART
Students are eligible after completing one semester in the program. S/U only. Registration by contract only. By working in Bay Area museums or galleries, students will become familiar with various museological operations. Internships vary owing to the work at hand in particular museums, but possible areas of work include registration, installation, conversation, writing of grants, or museum education.

ART 2201C Fabrications I (3) FA ART
An introduction to basic visual art studio concepts. Topics include the nature of art, the visual language of its form, modes of representation, and visual art theory. Studio problems supplemented by reading and discussion. Emphasis on images of implied time and space.

ART 2203C Fabrications II (3) FA ART
PR: ART 2201C (for majors). No prerequisites for non-majors. This course will involve and expand on the groundwork laid in Fabrications I, which is pre-requisite for majors, but not for non-majors. Fabrications II will focus on the significance of meaning and how it is constructed visually by researching 3 phases: I - the personal images, We - images of cultural ideas, and They - images produced through collaboration.

ART 2222 Beginning Electronic Media (3) FA ART
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 media. Available to majors and non-majors.

ART 2301C Beginning Drawing (3) FA ART
Intermediate projects exploring the methods, media, and concepts of drawing.

ART 2400C Beginning Printmaking (3) FA ART
This course is designed as an introduction to the medium of printmaking. It concentrates on the technical production of various print media including: intaglio, relief, lithography and serigraphy (screen printing).

ART 2510C Intermediate Painting (3) FA ART
Intermediate projects in painting with emphasis on the exploration of methods and media and the development of individual concepts.

ART 2701C Beginning Sculpture (3) FA ART
Continued problems in sculpture. PR: ART 2702C or ART 2111C. Study of current 3-D issues in art with special emphasis on the exploration of materials and processes.

ART 2702C Beginning Sculpture (3) FA ART
Continued problems in sculpture. PR: ART 2701C and PR: ART 3702C. Continued studies and projects in sculpture with an emphasis on the nature of multiples explored through advanced mold making and bronzing. This course may not be repeated for credit. The conceptual implications of the multiple will be taught through reading, lecture, discussion and demonstration.

ART 3702C Intermediate Sculpture (3) FA ART
This course expands upon the principles and processes introduced in Beginning Sculpture, developing a higher level of technical competence and critical sophistication. Intermediate Sculpture is prerequisite to Multiples, Molds and Bronzing and to Site Installation. Performance. Repeatable up to 9 hours.

ART 3712C Multiples, Molds, and Bronzing (3) FA ART
PR: ART 2701C and PR: ART 3702C. Continued studies and projects in sculpture with an emphasis on the nature of multiples explored through advanced mold making and bronzing. This course may not be repeated for credit. The conceptual implications of the multiple will be taught through reading, lecture, discussion and demonstration.

ART 3758C Site, Installation, and Performance (3) FA ART
PR: ART 2701C and PR: ART 3702C. Continued studies and projects in sculpture with an emphasis on the nature of multiples explored through advanced mold making and bronzing. This course may not be repeated for credit. The conceptual implications of the multiple will be taught through reading, lecture, discussion and demonstration.

ART 3930C Intermediate Printmaking (3) FA ART
An extension of the skills and concepts introduced in Beginning Printmaking with an emphasis on individual experimentation and the development of advanced critical and technical skills in the discipline. The course is repeatable for up to 9 hours.

ART 3937C Intermediate Sculpture (3) FA ART
This course expands upon the principles and processes introduced in Beginning Sculpture, developing a higher level of technical competence and critical sophistication. Intermediate Sculpture is prerequisite to Multiples, Molds and Bronzing and to Site Installation. Performance. Repeatable up to 9 hours.

ART 3939 The Real World (2) FA ART
Restricted to studio majors. This course offers students the opportunity to analyze their experiences as art majors and explore options available to visual artists upon completion of their degree.

ART 4111C Adv/Intro to Ceramics (3) FA ART
PR: ART 3110CC. Continued problems in ceramics.

ART 4223 Advanced Electronic Media (3) FA ART
PR: ART 2222 or DPRO. Advanced exploration of issues and practices involved in the creation of experimental computer art. The course continues as an interdisciplinary approach to electronic media with a focus on individual and group projects.

ART 4320C Advanced Drawing (3) FA ART
PR: ART 2301C. Continued projects in drawing.

ART 4402C Advanced Printmaking (3) FA ART
PR: ART 2400C. This course is designed as an advanced printmaking studio 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) FA ART
PR: ART 2510C. Continued projects in painting.

ART 4702C Advanced Sculpture (3) FA ART
PR: ART 2701C. Continued problems in sculpture.

ART 4703 Sculpture III (4) FA ART
PR: ART 2702C or ART 2111C. Study of current 3-D issues in art with advanced self directed project to explore the development of a personal vocabulary in 3-D media.

ART 4806 Theme Studio (3) FA ART
PR: All preparation courses plus course in Studio Workshop I.

ART 4900 Directed Reading (4) FA ART
PR: CI. Registration by contract only. A course of reading and study in an area of special concern. Open University offerings under this number may not be counted for degree credit for art majors.

ART 4905 Directed Study (1-4) FA ART
PR: CI. Registration by contract only. Independent studies in any five areas of Visual Arts. Course of study and credits must be assigned prior to registration.

ART 4930 Selected Topics In Art (2-4) FA ART
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.

ART 3111C Intermediate Ceramics (3) FA ART
Intermediate projects in ceramics and focus on the exploration of methods and media and the development of individual concepts.

ART 3222C Intermediate Electronic Media (3) FA ART
Majors only. An intermediate exploration of the issues and practices involved in the creation of experimental computer art. The course focuses on an interdisciplinary approach to electronic media while developing individual creative growth.

ART 3302C Intermediate Drawing (3) FA ART
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. The course is repeatable up to 9 hours.

ART 3401C Intermediate Printmaking (4) FA ART
This course concentrates on developing intermediate skills in printmaking with particular emphasis on conceptual topics. The course is intended for majors. It is repeatable for credit up to 9 hours.

ART 3402C Advanced Printmaking (4) FA ART
PR: ART 2301C. Investigation of Printmaking Media including: monoprinting, collograph, relief printing and the dimensional print with emphasis on the development of individual concepts.
AST 5040C Drawing (4) FA ART PR: ART 4300C. Cl. Advanced problems in various drawing techniques. Emphasis on individual creative expression.

AST 5422C Lithography (4) FA ART PR: ART 4420C. Cl. Advanced problems in various lithographic techniques. Emphasis on individual creative expression.

AST 5380C Sculpture (4) FA ART PR: ART 2702C. DPR, Advanced problems in the various techniques of sculpture. Emphasis on individual creative expression. 

ART 5910 Research (1-4) FA ART PR: Registration by contract only.

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

ASH 3040 Modern China SS HP AF (4) AS HTY Political, economic, and social history of China from the time of the first major contacts (17th-18th Centuries) through the consolidation of socialism in the late 1950's, and the Great Leap Forward.

ASH 3501 History of India (4) AS HTY A study of the major themes of Indian history from the Indus culture to the present. Emphasis will be given to the Classical, Mogul and British periods as well as the modern independent sub-continent.

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.

ASN 3105 The Pacific Century SS HP AF (3) AS INT Explores the themes and trends which have affected the entire Asia-Pacific region. Textual material and videos trace the emergence of the modern nations of Northeast and Southeast Asia, focusing on the political and economic development of the past 150 years. (Open University - televised course.)

AST 2005 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, space exploration of planets and the moon, life on other worlds. This course is complementary to but independent of AST 2006. Either may be taken before the other or taken by itself.

AST 2006 Stellar Astronomy and Cosmology NS (4) AS AST An 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, evolution of stars, normal and peculiar galaxies, cosmology. This course is complementary but not independent of AST 2005. Either may be taken before the other or taken by itself.

AST 2032C Illustrating 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 demonstration. Lec.-Lab.

AST 3033 Contemporary Thinking in Astronomy NS (3) AS AST PR: Junior or Senior Standing or CI. Seminar designed to assist the learner and/or the 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 changes 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 may 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 (1-5) AS AST PR: Senior or advanced junior standing or CI. Intensive 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 1010. Introduction to the chemistry and intermediary metabolism of biologically important substances. Lec.

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

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, antibodies, inhibitors, and antagonists.

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 selection of a mentor.

BME 5740 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 5742 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 5746 Introduction to Biomedical Engineering (3) EN ECH PR: Senior or GS standing in engineering or CI. Open to non-engineering students with CI. Introduction to biomedical engineering, including human subject material and energy balances, biomaterials, biocompatibility, cell level and organ level modeling, prosthetic devices, and clinical engineering.

BME 5748 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 materials, bioreheology, cardiovascular engineering.

BME 600 Directed Research in Bioengineering (1-3) EN ECH PR: CI. Directed research in an area of biomedical engineering or engineering biotechnology.

BMS 4402 Principles Of Human Pharmacology NS (3) ME MSG Not available on S/UF 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 PR: BSC 2010, BSC 2010L, BSC 211, BSC 211L. Introduction to morphology, physiology, and evolution of vascular plants, integrating form and function to understand diversity. Lec.-Lab.
BSC 2050 Environment (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 2093 Human Anatomy and Physiology I (3) AS BIO
PR: BSC 2100, BSC 2100L and BSC 2101, BSC 2101L. This course is the first half of a two-semester series introducing the structure and function of the human body's major organ systems. Cellular and cardiac physiology, nervous, endocrine, skeletal, and muscular systems will be covered. May be taken by Departmental majors for free elective credit only.

BSC 2094 Anatomy & Physiology II (3) AS BIO
PR: BSC 2093. PR: BSC 2093. This course is the second half of a two-semester series introducing the structure and function of the human body's major organ systems. The following body systems will be covered: circulatory, lymphatic, immune, respiratory, digestive, urinary, and reproductive. May be taken by Departmental majors for free elective credit only.

BSC 2932 Selected Topics in Biology (1-4) AS BIO

BSC 2933 Selected Topics in Biology (1-4) AS BIO
Enrollment is limited to Biology Department Honors students. A course linked to the Biology Departmental Seminar in which students read publications related to the seminars, discuss the presentations and write critiques.

BSC 2939 Directed Study: Business Education (1-3) ED EDE
PR: CI. S/U only. May be taken by majors for free elective credit.

BSC 2934A Biological Research Methods (1-3) AS BIO
Enrollment is limited to Biology Department Honors students. S/U only. A course to prepare Biology Honors student to work on their Honors theses.

BSC 4401 Special Teaching Methods: Business Education (1-3) AS BIO
PR: Successful completion of BE competencies. Methods, techniques, and materials for skill development.

BSC 4909 Directed Study: Business Education (1-3) ED EDE
PR: Senior standing. To extend competency in teaching field.

BSC 4932 Honors Seminar II (2) AS BIO
Enrollment is limited to Biology Department Honors students. A reading and discussion course involving areas of general interest in biology.

BSC 4933 Selected Topics in Biology (1-3) AS BIO

BSC 4970 Biography Honors Thesis (1-3) AS BIO
PR: BSC 4402L and either BSC 4931 or BSC 4932. Enrollment is limited to Biology Department Honors students only. A thesis based on independent research carried out by the student.

BSC 5931 Selected Topics in Biology (1-3) AS BIO

BTE 4401 Special Teaching Methods: Business Education (4) ED EDE
PR: Successful completion of BE competencies. Methods, techniques, and materials for skill development.

BTE 4940 Internship: Business Education (1-12) ED EDE

BTE 4949 Internship: Business Education (1-12) ED EDE

BTE 4948 Field-Based Seminar in Business Education (3) ED EDE
S/U only. Supervised field experience and orientation to broad field business education. Specifically designed to be preparatory for the internship.

BTE 5171 Curriculum Construction: Business Education (3) EDE
Curriculum scope, the process of planning and organizing instructional programs with emphasis on task analysis and process evaluation.
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<th>Course Code</th>
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<tr>
<td>CCJ 3230</td>
<td>Law And Business I (3) BA GBA</td>
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<tr>
<td>CCJ 3231</td>
<td>Law And Business II (3) BA GBA</td>
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This course reviews the best works of structural engineering to introduce to steel design. PR: EGN 3331. Analysis of simple structural systems, both determinate and indeterminate. Moment area theorems; influence lines; PR: CDA 3201, CDA 3201L. Principles of the design of computer and microcomputer-based designs.

CCJ 4700 Statistical Research Methods in Criminal Justice II (3) AS CJP
PR: 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 4801 Private Security Systems (3) AS CJP
PR: Junior standing plus CCJ 4110, CCJ 3024, CCJ 3610, CCJ 3621 or CI. Examinations of some of the legal principles and techniques currently used to reduce or prevent losses due to theft and casualty.

CCJ 4900 Directed Readings (1-3) AS CJP
PR: CCJ 3024, CCJ 3610, CCJ 3621, C. 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 4 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 CCG 4900, 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 work in the area of criminal justice. Each student will be under the close supervision of a faculty member of the program.

CCJ 4910 Directed Research (1-3) AS CJP
PR: CCJ 3024, CCJ 3610, CCJ 3621, C. 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 4 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 4900, 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 work in the area of criminal justice. Each student will be under the close supervision of a faculty member of the program.

CCJ 4933 Selected Topics in Criminology (3) AS CJP
PR: Junior standing, CCJ 3024, CCJ 3610, CCJ 3621, CCJ 3610. No more than 9 hours of CCJ 4933, CCJ 4934, or any combination of the two will be accepted toward the minimum number of hours required for the major. Lecture course. Topic varies and is designed to address a wide variety of issues in criminology and criminal justice. Open to non-majors with CI.

CCJ 4934 Seminar in Criminology 6A MW (3) AS CJP
PR: Senior standing, CCJ 3024, CCJ 3610, CCJ 3621 and CCJ 3610 and CI. No more than 9 hours of CCJ 4933, CCJ 4934, or any combination of the two will be accepted toward the minimum number of hours required for the major. These variable topic seminars are used for the in-depth study and discussion of the relationships among culture, gender, ethics, age, society, and criminal behavior. Such examinations may introduce the topics of the criminal justice does (or does not) have to deal with these interactions, and the ethics and efficacy of the system's response. Open to non-majors with CI.

CCJ 4940 Internship For Criminal Justice Majors (3) AS CJP
PR: Senior standing, CCJ 3024, CCJ 3610, CCJ 3621, S/U only. 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 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.

CDA 3100 Computer Organization (3) EN ESB
PR: PHY 2049 or PHY 2054. Introduction to computer hardware, logic elements and Boolean algebra, computer organization, the central processing unit, assembly language programming, input/output, and memory.

CDA 3201 Computer Logic and Design (3) EN ESB
PR: CDA 3100, CDP 3514; CP: CDA 3201L. Advanced coverage of Boolean Algebra, introduction to minimization of combinational logic circuits, analysis and synthesis of sequential circuits, testing of logic circuits, and programmable logic devices. PR: CDA 3100, CR: 3201L.

CDA 3201L Computer Logic Design Lab (1) EN ESB
CP: 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 instruction set 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
PR: CDA 3201, CDA 3201L. This lab introduces the student to the concept of system design. Several projects are given including bus-timining 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, memory, and switches. Consideration of the register transfer representation of a computer, ALUs and their implementation, control units, memory and I/O, and the hardware support of operation systems.

CDA 5405 Modeling Computer System Performance I (3) EN ESB

CDA 5406 Modeling Computer System Performance II (3) EN ESB
PR: CDA 5405. Continuation of Performance Modeling I. Practical limitations. Numerical accuracy. Students will develop a practical modeling program and explore its use.

CEG 4011 Geotechnical Engineering I (3) EN ESG
PR: ECE 3353, EGG 3353, EGG 3354, EGG 3355. Introduction to soil mechanics with emphasis on soil properties, soil moisture, soil structure, and bearing strength.

CEG 4011L Geotechnical Laboratory (1) EN ESG
CP: CEG 4011L. Demonstrations and experiments verifying theoretical bases of Geotechnical Engineering. One hour lecture and two laboratory hours per week.

CEG 4012 Geotechnical Engineering II (3) EN ESG
CP: 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 (3) EN ESG
PR: CEG 4011, TTE 4004. 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 determination, bid tab planning and specification preparation.

CEG 5115 Foundation Engineering (3) EN ESG
PR: CP: CEG 4011 or CI. Design of shallow foundations, cantilevered and anchored retaining walls, piling, drilled piers and special foundations. Computer applications to geotechnical engineering are covered.

CEG 5205 Laboratory Testing for Geotechnical Engineers (3) EN ESG
PR: CP: CEG 4011 or CI. Both routine and advanced forms of soil testing are covered. Emphasis is placed on procedures and application of results to design.

CEG 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.

CET 4022 Software System Development (3) EN ESB
PR: EEL 4851C. Consideration of object methodology and object-oriented programming, Team analysis, design, and development of complex software systems using software development tools.

CET 4021 User Interface Design (3) EN ESB
PR: EEL 4851C. An examination of factors influencing the usability of a computer system. Topics include input and output devices, graphic and multi-media interfaces, formats for interaction/communication, and the evaluation of usability.

CES 3102 Structures I (3) EN ESG
PR: EGR 3333. Analysis of simple structural systems, both determinate and indeterminate. Moment area theorems; influence lines; PR: CDA 3100 or CI. Design of retaining walls, earth slopes, foundations to control settlement, soil stabilization and foundations subjected to dynamic loads. Computer applications to geotechnical engineering are covered.

CES 4000 Structures and The Urban Environment for Non-Engineers 6A MW (3) EN ESG
This course reviews the best works of structural engineering to introduce to how current technology and social context affects structural form, to familiarize students with relevant structural principles, and to introduce the concept of structural art.
CGS 2060 SC Introduction to Computers and Programming (3) EN ESB
No credit for Engineering Majors. An overview of computer systems and their role in society. Survey of the evolution of computer software and hardware technology with emphasis on current applications. Introduction to programming using the BASIC language.

CGS 4062 Computers And Society (3) EN ESB
No credit for Engineering Majors. For non-engineering majors only. This computer literacy course covers the fundamentals of hardware, software, and programming languages, presents a broad overview of data processing concepts, problems and applications for students with little or no computing background.

CGS 2460 Fundamentals of Programming in C 6A (3) AS CHM
No credit for Engineering Majors. Structured programming implemented with the C language. Emphasis on program structure and data manipulation.

CGS 4063 SC GPSS Simulation (3) EN ESB
No credit for Engineering Majors. The development and execution of discrete event simulation models and real-world systems using the GPSS language.

CES 4742 Capstone Structural/Materials Design (3) EN ESB
PR: CES 4702. A 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 4740 Capstone Structural/Geotechnical/Material Design MW (3) EN ESB

CES 4742 Concepts of Structural Design (3) EN ESB

CES 4720 Concepts of Corrosion (3) EN ESB

CES 4820C Timber and Masonry Design (3) EN ESB

CES 4815 Intermediate Mechanics of Materials (3) EN ESB
PR: EGN 3365, CES 4605, CES 4702. An introduction to the mechanics of deformation and stress. Basic concepts, strain and stress transformations, special topics in beams, theory of elasticity, criteria of failure, beams on elastic foundation.

CES 5300 Advanced Mechanics of Materials I (3) EN ESB
PR: EGN 3365, 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 5301 Advanced Mechanics of Materials II (3) EN ESB
PR: EGN 3365, 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 5302 Advanced Mechanics of Materials II (3) EN ESB
PR: EGN 3365, 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 5000 Advanced Mechanics of Materials I (3) EN ESB
PR: EGN 3365, 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 5001 Advanced Mechanics of Materials II (3) EN ESB
PR: EGN 3365, 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.

CHI 1120 Modern Chinese I (4) AS WLE
PR: CHI 1120L. Mandarin. An intensive study of basic skills: pronunciation, listening, comprehension, speaking, and some composition.

CHI 1120L Modern Chinese I Laboratory (1) AS WLE
PR: CHI 1120. 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.

CHI 1121 Modern Chinese II (4) AS WLE
PR: CHI 1121L. Mandarin. CHI 1120 or equivalent. A continuation of CHI 1120. More sophisticated oral/aural skills are attained. Basic reading skills are acquired.

CHI 1121L Modern Chinese II Laboratory (1) AS WLE
PR: CHI 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.

CHI 2200 Modern Chinese III (4) AS WLE
PR: CHI 1121 or the equivalent. For language students who intend to attain basic proficiency.

CHI 2201 Modern Chinese IV (4) AS WLE
PR: CHI 2200 or the equivalent. Continuation of CHI 2200. Practice of writing, speaking and listening skills for language students who intend to attain basic proficiency.

CHI 4905 Directed Study (1-5) AS CHM
No credit for science majors. PR: High school chemistry and mathematics including algebra are recommended. An introduction to the principles and applications of modern chemistry including the properties of matter, structural view of matter and reactions, quantitative relations in chemical reactions, technological aspects and societal impact.

CHM 2030 Introduction to General, Organic and Biochemistry (4) AS CHM
No credit for science majors. First half of a two-semester sequence. Fundamental concepts of general, organic, and biological chemistry.

CHM 2045 General Chemistry I NS (3) AS CHM
PR: One year of high school chemistry and two years of high school mathematics including algebra; or, completion of CHM 2040 with grade of C or better. Principles and applications of chemistry including properties of substances and reactions, thermochromism, atomic-molecular structure and bonding, periodic properties of elements and compounds.
CHM 2045L General Chemistry I Laboratory (1) AS CHM
PR/CP: CHM 2045. Laboratory portion of General Chemistry I. Introduction to laboratory techniques; study of properties of elements and compounds; synthesis and analysis of natural and commercial materials.

CHM 2046 General Chemistry II NS (3) AS CHM
PR: CHM 2045 or CHM 2045L or equivalent. Continuation of General Chemistry. Lec.-dis.

CHM 2046L General Chemistry II Laboratory (1) AS CHM
PR: CHM 2046. Laboratory portion of General Chemistry II. Continuation of chemistry laboratory.

CHM 2200 Organic Chemistry (4) AS CHM

CHM 2210 Organic Chemistry I (3) AS CHM

CHM 2210L Organic Chemistry Laboratory I (2) AS CHM

CHM 2211 Organic Chemistry II (3) AS CHM
PR: CHM 2210 or equivalent. Continuation of organic chemistry. Lecture.

CHM 2211L Organic Chemistry Laboratory II (2) AS CHM

CHM 2332 Selected Topics in Chemistry (3) AS CHM
Topics of interest to students relating to chemistry and other sciences.

CHM 3120C Elementary Analytical Chemistry (4) AS CHM

CHM 3400 Elementary Physical Chemistry I (3) AS CHM
PR: CHM 2046L, MAC 2281 or MAC 2312, PHY 2054, PHY 2054L. Introduction to thermodynamics. Properties of solutions with emphasis on biological applications.

CHM 3401 Elementary Physical Chemistry II (3) AS CHM
PR: CHM 3400. Reaction kinetics, enzyme kinetics, macromolecular systems, radiochemistry, molecular spectroscopy, and chemical bonding.

CHM 3402L Elementary Physical Chemistry Laboratory (1) AS CHM
PR: CHM 3120C. CP: CHM 3400 and/or CHM 3401. A physical chemistry laboratory with emphasis on modern techniques and instruments. Lab.

CHM 3610 Intermediate Inorganic Chemistry (3) AS CHM
PR: CHM 2046, CHM 2046L. Fundamental principles of inorganic chemistry including atomic structure, bonding theories and structural consequences, transition metal chemistry and illustrative laboratory work. Lec.-lab.

CHM 3610L Intermediate Inorganic Chemistry Laboratory (1) AS CHM
PR: Two semesters of general chemistry lecture and lab. CP: CHM 3610. Illustrative laboratory work concerning the fundamental principles of inorganic chemistry including atomic structure, bonding, transition metal chemistry, structural consequences and spectroscopic methods.

CHM 4060 Use of the Chemical Literature (1) AS CHM
Discussions and assignments using abstracts, bibliographies, indices, encyclopedias, journals, patent files, electronic databases, and other information sources to obtain chemical and technical material and including written and oral presentations. Career information and opportunities also discussed.

CHM 4070 Historical Perspectives in Chemistry 6A MW (3) AS CHM
PR: One year of college chemistry; or senior standing and CI. A study in depth of the historical and philosophical aspects of outstanding chemical discoveries and theories. Lec.-dis.

CHM 4130C Methods of Chemical Investigation I (4) AS CHM
PR: CHM 3120C, CHM 2211, CHM 2211L, CHM 4060, CHM 4410. Theory and applications of instrumental methods in chemical research, chemical synthesis and analysis; electrochemical and chromatographic techniques; separatory methods, spectroscopy, statistical analysis of data, computer data handling, and individual projects.

CHM 4131C Methods of Chemical Investigation II (4) AS CHM
PR: CHM 4130C. Continuation of CHM 4130C.
CRW 4930 Selected Topics in Creative Writing (3) EN ESB
PR: MAC 2281 or equivalent. Introduction to set algebra, propositional calculus and finite algebraic structures as they apply to computer systems.

CRW 4210 Automata Theory and Formal Languages (3) EN ESB
PR: CRW 3100, EEL 4851C. Introduction to the theory and application of various types of computing devices and the languages they recognize.

CRW 4400 Analysis Of Algorithms (3) EN ESB
PR: CRW 3100, EEL 4851C. Design principles and analysis techniques applicable to various classes of computer algorithms frequently used in practice.

CPO 2002 Introduction to Comparative Politics SS (3) AS ENG
Comparison and analysis of representative European and non-Western political systems.

CPO 4034 Politics of the Developing Areas SS AF (3) AS PO
An analysis of the ideologies, governmental structures, and political processes of selected nations of the non-Western world.

CPO 4204 Government and Politics of Africa SS AF (3) AS AF
Designed to provide the information and analytical tools necessary to interpret current Sub-Saharan African politics. Survey of political organization in traditional African societies; politics under colonial rule; the struggle for independence, and post-independence politics.

CPO 4930 Comparative Government and Politics of Selected Countries or Areas (3) AS PO
Studies political systems with common elements. Structure, process, domestic and foreign politics, and regional roles are considered.

CWR 4103 Water Resources Engineering I (3) EN ESB
PR: CWR 4202, CWR 4103, ENV 4417, ENV 4502 or CWR 4545. A study of the engineering principles involved in sustaining and managing 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 ESB
PR: EGN 3353. Fundamental and applied aspects of pipe flow, free surface flow, and unsteady flow for hydraulic systems.

CWR 4545 Water Resources Engineering II (3) EN ESB
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 process and the ground water flow.

CWR 4812 Capstone Water Resources/Environmental Design MW (3) EN ESB
PR: CWR 4202, CWR 4103, ENV 4417, ENV 4502 or CWR 4545. 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 3109 Modern Dance III (3-4) FA DAN
Further emphasis on style and phrasing. Work on projecting mood and attitude in performances and lecture demonstrations, concert jazz dance. Emphasis is on highly stylized movement on a strong rhythmic base.

DAA 2500 Fundamentals Of Jazz Dance (2) FA DAN
A basic movement course in Jazz Dance involving dance vocabulary, alignment, styles and simple rhythmic movement patterns.

DAA 2504 Jazz Dance (2) FA DAN
PR: Admission by placement audition. Technique class for students with a serious interest in Jazz dance. Emphasis is on correct alignment, development of strength, rhythmic and dynamic activity as well as spatial and locomotor patterns that underlie work in more advanced contemporary dance.

DAA 2205 Ballet I (2) FA DAN
PR: Admission by placement audition. Technique class for students with a serious interest in Ballet. Emphasis on correct alignment, development of strength, rhythmic and dynamic activity as well as spatial and locomotor patterns that underlie work in more advanced contemporary dance.

DAA 2204 Ballet Modern I (2) FA DAN
A studio class for students with a serious interest in Ballet. Emphasis on correct alignment, development of strength, rhythmic and dynamic activity as well as spatial and locomotor patterns that underlie work in more advanced contemporary dance.

DAA 2105 Modern Dance I (2) FA DAN
PR: Admission by placement audition. A studio class for students with a serious interest in modern contemporary dance. Emphasis on correct alignment, development of strength, rhythmic and dynamic activity as well as spatial and locomotor patterns that underlie work in more advanced contemporary dance.

DAA 2500 Fundamentals Of Modern Dance (2) FA 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).

DAA 2205 Ballet I (2) FA DAN
PR: Admission by placement audition. 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).

DAA 2205 Ballet Modern I (2) FA DAN
PR: Admission by placement audition. 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 on a strong rhythmic base.

DAA 2540 Theatre Dance Styles (2) FA DAN
PR: DAA 2100 or DAA 2200 or CI. Development of technical skills in social and historical dance forms frequently studied for use by dance choreographers. Forms to be studied will include polka, clogging, waltz, folk, tap dancing, etc.

DAA 2570 Jazz Theatre Dance (3) FA DAN
PR: Admission by placement audition and DAA 3502. Continuation of DAA 3505. Further emphasis on projection, phrasing, rhythmic patterns and dynamics. Solo and ensemble studies leading to performance.

DAA 2760 Tai Chi (2) FA DAN
This course is an introduction to the study of Tai Chi focusing on the philosophy and postures of this martial art.

DAA 2761 Introduction to Yoga (2) FA DAN
This course is designed to provide students with an understanding of basic Yoga philosophy and practice which includes postures, meditation and breath techniques.

DAA 3108 Modern Dance II (3) FA 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 attendance required.

DAA 3109 Modern Dance III (3-4) FA DAN
PR: Admission by placement audition. Continuation of DAA 2104. Further emphasis on style and phrasing. Work on projecting mood and quality by dancing and rehearsing in more advanced choreography, leading to performance.
DAE 4300 Dance Pedagogy: Theory and Practice (3) FA 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 for Pre-K and elementary students.

DAE 4304 Dance Pedagogy: Secondary Curriculum (3) FA 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) FA DAN
PR: CI and CC. PR: CI and CC. For majors and non-majors. 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) FA DAN
CP: 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) FA DAN
CP: DAE 4936. S/U only. One full semester of internship in a public or private school. In special programs where the internship 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) 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 2100 Entry Seminar (2) FA 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 2610 Music For Dance (2) FA DAN
PR: DAN 2610 or CI. Development of musical skills in movement studies. Continued study of the inter-relationship of music and dance through movement experiences, observations, video, and writing.

DAN 3420 Introduction to Laban Movement Analysis (3) FA DAN
Laban Movement Analysis is a system which enables one to see, describe and learn movement in a clear, efficient and objective manner. Space, shape, dynamics and human development patterns are categories which are studied by means of lecture, improvisational movement and reading materials.

DAN 3584 Practicum In Dance Production (1-2) FA DAN
PR: Admission by placement audition. Continuation of DAN 3104. 120 hour lab required. Students must have at least 2 credits for graduation accumulated in two different semesters. 40 hour lab required.

DAN 4134 Dance History Though the 19th Century 6A XLW (3) FA DAN
Designed for majors and non-majors, this course will present a comprehensive view of the evolution of dance as an art form from its origins through the 19th Century. It is designed to develop awareness and insight through lecture, discussion, video, observation and writing.

DAN 4135 20th Century Dance XMW (3) FA 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 4140 Dance Senior Seminar (2) FA DAN
PR: Senior major status. A study of career opportunities in performance, teaching, research, design, and choreography. To aid majors in self-appraisal as artists and develop methods to further their potential in the professional world. Discussion, critical evaluation and projects.

DAN 4784 Specialized Study in Movement Theory and Body Alignment (2) FA DAN
Analysis of scientific basis of movement for the dancer through the study of body alignment and movement theories related to dance techniques.
ECH 4905 Directed Reading (2) FA DAN
PR: CI and CC. A contract with all necessary signatures is required for registration. Readings in topic of special interest to the student. Selection of topic and materials must be agreed upon and appropriate credit must be assigned prior to registration.

ECH 4906 Directed Study (1-5) FA DAN
PR: CI. CC. Independent studies in the various areas of Dance. Course of study may be used to fulfill Junior Project. Must receive approval prior to registration.

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

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

DEP 2004 The Life Cycle (3) AS GYE
An examination of individuals and the physical, cognitive, personality, and social changes which occur throughout the entire life span.

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 4005 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 5054 Vocabulary 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.

EAB 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. (S/U only). 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. Does not count toward major credit (S/U only).

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 Introduction to Process Engineering (4) EN ECH
PR: EGN 3358. CP: CHM 4410, ECH 3023Cl. 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 3023L Chemical Engineering Lab I (1) EN ECH
CP: ECH 3023C. PR: PHY 3048 and 3049 and EGN 3343. 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) analyses.

ECH 3358 Basic Thermodynamics, Fluids and Heat Transfer (4) EN ECH
Introduction to 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. Introduction to steady-state conductive and convective heat transfer.

ECH 3702 Instrument Systems I (4) EN ECH
PR: EGN 3373. Application of discrete logic operations for sensor interfacing and optimization of transport and convective coefficients. Introduction to the use of personal computer I/O interface cards of control application.

ECH 4123C Psychometric Chemical Equilibria (3) EN ECH
PR: For majors, ECH 3023C; for non-majors ECH 3023 or CHM 4410. Correlation of thermodynamic properties of real systems and solutions. Description of multicomponent, multiphase systems in equilibrium. Applications to separation processes and reactor design. Lecture/laboratory.

ECH 4244L Chemical Engineering Laboratory II (2) EN ECH
CP: ECH 4415C. EGN 4265C. Chemical Engineering Processes laboratory experiments: fluid flow, heat transfer, phase and chemical equilibria, reacting systems, and process control.

ECH 4264 Transport Phenomena (3) EN ECH
PR: MAP 2302, EGN 3358. Transport Phenomena, including fluid flow, heat transfer and mass transfer. Mathematical description and solution of fundamental problems including unsteady-state, multi-dimensional in different coordinate systems (rectangular, cylindrical and spherical) and production terms. Estimation of transport coefficients.

ECH 4265C Process Engineering 2: Separation Processes (4) EN ECH
PR: ECH 3023C, ECH 4264, CHM 4410. 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 4265L Chemical Engineering Lab II (1) EN ECH
CP: ECH 4265C. Chemical Engineering processes laboratory experiments: fluid flow, heat transfer, phase and chemical equilibria, reacting systems, and process control.

ECH 4323C Automatic Control I (4) EN ECH

ECH 4415C Process Engineering 3: Reacting Systems (4) EN ECH
PR: CHM 4412, ECH 3023C. Integration of chemical equilibrium and kinetics, heat transfer and fluid mechanics into the hierarchical description of reacting systems. Analysis and selection of a- operating conditions for both adiabatic and, b.- contacting models, back-mixed versus plug-flow. Sizing: pressure drop, heat transfer surface and reactor volume.

ECH 4415L Chemical Engineering Lab III (1) EN ECH
CP: ECH 4415C. Chemical Engineering Processes laboratory experiments: fluid flow, heat transfer, reacting systems, and process control.

ECH 4605 Strategies of Process Engineering (3) EN ECH

ECH 4615 Plant Design MW (3) EN ECH

ECH 4845 Quantitative Methods in Chemical Engineering (3) EN ECH

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: CI.

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

ECH 5295 Transport Phenomena (3) EN ECH
PR: Senior or GS in Engineering. Basic descriptive equations of fluid, heat, and mass transport. Description and solution to intermediate problems, including unsteady state and multidimensional systems.

ECH 5320 Environmental Reacting Systems (3) EN ECH
PR: EGN 3358, ECH 4264, CHM 4410. Application of chemical reaction engineering principles to problems in environmental engineering. Basic chemical kinetics and the modeling of batch and continuous systems. Applications will include containment fate and transport and remediation.

ECH 5324 Automatic Process Control II (3) EN ECH
PR: ECH 4232C 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 deadbeat compensators.
ECO 5747C Selected Topics in Chemical Engineering Biotechnology (1-3) EN ECN
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 their applications, biofouling, biohazardous waste, and bioseparations.

ECO 5820 Product Development (2) EN ECN
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.

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

ECO 5931 Special Topics IV (1-4) EN ECN
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 ECN
PR: ECO 2013. Introduction to the theory of price determination. How an economy decides what to produce, how to produce, and how resources are distributed to consumers and businesses.

ECO 2935 Selected Topics In Economics (1-3) BA ECN
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 3100 Managerial Economics (3) BA ECN
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 3100 and ECO 3101.

ECO 3101 Intermediate Price Theory (3) BA ECN
PR: ECO 2023. The price system and allocation of scarce resources between competing uses. May not receive credit for both ECO 3100 and ECO 3101.

ECO 3203 Intermediate Macroeconomics (3) BA ECN
PR: ECO 2013 and ECO 3100 or ECO 3101 with a grade of "C" or better. Determination of income, employment, prices, and interest rates. Aggregate demand and aggregate supply.

ECO 3622 American Economic History (3) BA ECN

ECO 3703 International Economics MW (3) BA ECN
PR: ECO 3100 or ECO 3101 with a grade of "C" or better. Role of international trade in the U.S. economy. Gains from trade, balance of payments, exchange rate determinations, balance of payments stability, and international commercial policy.

ECO 4105 Advanced Price Theory (3) BA ECN
PR: ECO 3100 or ECO 3101 with a grade of "B" or better. Analysis of 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 ECN
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 area also presented.

ECO 4303 History Of Economic Thought (3) BA ECN
PR: ECO 3100 with a grade of "C" or better. Development of economic thought from Plato to Marshall.

ECO 4323 Radical Political Economy MW (3) BA ECN
PR: ECO 1000 or ECO 2013 or CI. The radical (left) and Marxist schools of thought in economics. Examination of radical theory to problems of advanced capitalist and socialist societies.

ECO 4401 Introduction to Mathematical Economics (3) BA ECN
PR: ECO 2013, QMB 3200, and MAC 2233 or MAC 2230 or CI. Mathematical models of optimizing behavior and economic equilibrium.

ECO 4421 Introduction to Econometrics (3) BA ECN
PR: 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.

ECO 4504 Public Finance (3) BA ECN
PR: ECO 3100 or ECO 3101 with a grade of "C" or better. The public sector and its contribution to economic welfare. Government expenditures and revenues and the role of tax systems. Resource allocation, income distribution, stabilization, and economic growth.

ECO 4713 International Macroeconomics (3) BA ECN
PR: ECO 3203 Advanced analysis of international macroeconomic relationships. Foreign exchange market, international monetary system, balance of payments, and payments system.

ECO 4723 International Trade and Policy (3) BA ECN
PR: ECO 3100 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 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 ECN
PR: ECO 1000 or ECO 2013 or 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 family as an economic unit, changing work roles, and gender differences in occupation and earnings.

ECP 3203 Labor Economics (3) BA ECN
PR: ECO 3100 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 ECN
PR: ECO 2023. An economic analysis of environmental issues. The economics of resource use and pollution control are examined using the concepts of externalities, cost-benefit analysis, public goods, and property rights.

ECP 3413 Economics of Regulation and Antitrust (3) BA ECN
PR: ECO 2023. Economic analysis of the rationale and performance of government regulation and antitrust 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 3504 Economics of Institutions to the Global Economy (3) BA ECN
PR: ECO 3100 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 potential healthcare systems.

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

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 2023. Advanced analysis of the economic impact of tort, criminal, property, and contract law as well as in the formation and adjudication of law.

ECP 4505 Economics of Crime (3) BA ECN
PR: ECO 3100 or ECO 3101 with a grade of "C" or better. Application of economic theory to the analyses of criminal behavior, crime prevention, law enforcement, sanctions, and corrections.

ECS 3013 Economic Development (3) BA ECN
PR: ECO 2013 or CI. Economic development in emerging nations.

ECS 4003 Comparative Economic Systems MW (3) BA ECN
PR: ECO 1000 or ECO 2013 or CI. The major economic systems: traditional, capitalism, democratic socialism, communism and fascism.

EDE 4301 Teaching Methods in the Elementary School (3) EDEDE
PR: EDE 4941 and EDG 4620. Techniques and strategies appropriate to instruction of children in educational settings.
EDE 4905 Independent Study: Elementary Education (1-4) ED EDE
S/U only. Specialized independent study determined by the student's needs and interests.

EDE 4909 Directed Study: Elementary Education (1-4) ED EDE
PR: Senior standing. To extend competency in teaching field.

EDE 4940 Internship: Elementary Education (10-12) ED EDE
PR: EDE 4941 and EDE 4942; CP: EDE 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.

EDE 4941 Childhood Education Internship Level I (3) ED EDE
PR: Admission to the Elementary Education, CP: RED 4310, EDC 4620. Concurrent enrollment in EDC 4620-Elementary section. S/U only. Students spend six hours per week in a supervised in-school experience and attend weekly seminar.

EDE 4942 Childhood Education Internship Level II (6) ED EDE
PR: EDE 4941, RED 4310, EDC 4620, EDF 3122, LAE 4314, EDF 4301, MAE 4310, SCE 4310, LAE 4414, SSE 4313, EME 2040. S/U only. Students spend 12 hours per week in a supervised internship experience in classroom settings and attend a weekly seminar.

EDF 2005 Introduction to Education and Field Experience (3) EDEDC
Introductory 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.

EDF 3122 Learning and the Developing Child (3) ED EDF
PR: General psychology and admission to College of Education. Preadolescent child growth and development, learning theory, and behavioral analysis applied to instruction and to the organization and management of classroom.

EDF 3214 Human Development And Learning (3) ED EDF
PR: General psychology and admission to College of Education. Application of respondent and operant learning principles to classroom learning, teaching models for different instructional goals, analysis of teaching behavior, micro-teaching.

EDF 3228 Human Behavior and Environmental Selection 6A MW (3) ED EDF
Learning principles, behavior analysis applied to global environmental and social issues. Requires elementary computer word processing skills.

EDF 3542 Philosophy of Education MW (4) ED EDF
PR: Upper level standing. A study of philosophy of education with an emphasis on aspects that are relevant to an understanding of the issues and problems of American education.

EDF 3604 Social Foundations of Education MW (3) ED EDF
PR: Upper level standing. Social, economic and political context within which social function and the values which provide direction for our schools.

EDF 4111 Child Growth and Learning (3) ED EDF
PR: General psychology and admission to College of Education. Child development and learning from an educational and psychological perspective. Emphasis is on the application of relevant constructs as they would reflect developmentally appropriate practices in early childhood learning settings.

EDF 4131 Learning And The Developing Adolescent (3) ED EDF
PR: General psychology and admission to College of Education. Adolescent growth and development, learning theory, and behavioral analysis applied to instruction and to the organization and management of the classroom.

EDF 4430 Measurement For Teachers (3) ED EDQ
PR: Upper level standing. Concepts and skills related to designing and developing classroom tests; evaluating tests, instruction, and student progress; and communicating student achievement. Including application of performance assessment techniques and computer applications for measuring and assessing pupil progress.

EDF 4505 Independent Study: Educational Foundations (1-4) EDEDF
PR: DPR. S/U only. Specialized independent study determined by the student's needs and interests.

EDF 4909 Directed Study: Educational Foundations (1-3) ED EDF
PR: Senior Standing. Offered only as a scheduled class. To extend competency in teaching field.

EDF 5136 Adolescence (4) ED EDF
Study of the educational, intellectual, personality, physical, social and vocational factors in adolescence and their importance for school personnel.

EDE 4905 Independent Study: Elementary Education (1-4) ED EDE
PR: Senior standing. To extend competency in teaching field.

EDE 5285 Programmed Instruction and Teaching Machines (3) EDEDF
Principles for programming in several academic subjects.

EDF 5607 Trends in the Social Political Foundations of Schooling in the US (3) ED EDF
Current debates re: purpose and practice of formal schooling in the U.S. with historical and sociological perspectives. Satisfies social foundations requirements for Fla. Teacher certification and ESL competency in knowledge of intercultural issues in education.

EDG 2701 Teaching Diverse Populations and Field Experience (3) ED EDC
Introductory survey course required for admission into the College of Education. Places schools and teaching within the context of the U.S. as a pluralistic society. Topics include: the demographics of diversity; prejudice; elements of culture; American heritage of diversity and its value; and barriers to cultural understanding. Includes lecture and field experience.

EDG 4320 Introduction to Creative Drama (3) FA 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 in the students' basic strategies when using pantomime, voice improvisation, theatre games, and role playing and story dramatization.

EDG 4620 Curriculum and Instruction (3) ED EDC
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 4905 Directed Studies (1-4) ED EDC
PR: Senior standing. Offered only as a scheduled class. Department permit required. To extend competency in teaching field.

EED 2000 Introduction to Early Childhood Education (3) ED EDU
An overview of early childhood education with emphasis on its historical development, current theories, and practices.

EEC 4008 Literature in Early Childhood Education 6A LW (3) EDEDU
Jr./Sr. Standing. Emphasis is placed on developing knowledge of literature for younger children (0-8 yrs.) and methodologies and strategies for utilizing literature to teach literacy in content areas of the curriculum.

EED 4203 Programs for Young Children (3) ED EDU
PR: Admission to College of Education. Early Childhood majors only. Develops students' understanding of historical and social foundations of early childhood education, establishing professional beliefs regarding teaching young children, and developing an appropriate learning environment.

EED 4211 Integrated Curriculum: Science and Mathematics (3) ED EDU
PR: Admission to College of Education, EDF 4111. Early Childhood majors only. Develops an understanding of science 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 valued functional tools.

EED 4212 Integrated Curriculum: Social Sciences/Humanities & Art (3) ED EDU
PR: Admission to College of Education, EDF 4111. Early Childhood majors only. 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.

EED 4300 Cognitive Experiences for Young Children (3) ED EDU
PR: Admission to College of Education, EDF 4111. Early Childhood majors only. Emphasizes theoretical and practical aspects of cognitive development for children ages 3 through 6 with focus on planning integrated experiences and content in science, mathematics, and social sciences.

EED 4303 Creative and Affective Experiences for Young Children (3) ED EDU
PR: Admission to College of Education. Early Childhood majors only. Develops students' understandings of young 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.
EEL 4408 Child, Family & Teacher Relations (3) ED EDU
PR: Admission to College of Education, EDF 4111. Early Childhood majors only. Focuses on developing an understanding of traditional and non-traditional families, structural 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.

EEL 4905 Independent Study: Early Childhood Education (1-4) ED EDU
PR: S/U only. Early Childhood majors only. Specialized independent study determined by the student’s needs and interests.

EEL 4909 Directed Study: Early Childhood Education (1-3) ED EDU
PR: Senior standing. To extend knowledge in teaching field.

EED 4936 Senior Seminar in Elementary Early Childhood Education (2) ED EDU
PR: Senior standing; CP: EEC 4940. Synthesis of teacher candidate’s courses in complete college program.

EEL 4941 Field Experience I (3) ED EDU
CP: EEL 4941. A field experience for students in their final year of full-time study abroad. Field experience includes a culminating project that integrates the content and skills learned in the program.

EEL 4942 Field Experience II (3) ED EDU
PR: Admission to College of Education, EDF 4111. 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 understandings of children’s development and implications of development for program planning.

EED 4011 Introduction to Behavior Disorders (3) EDS
PR: EED 4011, or equivalent or DPR. Survey of emotional, behavioral and social disorders in children and youth. History of the field, definitions, classifications, theoretical approaches, intervention techniques, classroom management, service delivery models, trends and issues.

EED 4909 Directed Study: Behavior Disorders (1-3) ED EDS
PR: Senior standing. To extend competency in teaching field.

EEL 4941 Undergraduate Supervised Practicum in Behavior Disorders (1-6) ED EDU
PR: EEX 4011. S/U only. DPR. Supervised field experience in assessment, classroom management, and clinical teaching with children who have emotional and behavioral disabilities.

EEL 2161 Electrical Engineering Computer Methods (3) EN EGE
Use of computers to perform analysis, simulation, and design of Electrical Engineering systems. Use of computer systems, including Internet resources. Use of analytical software. Computer programing in C++ for the solution of Electrical Engineering problems.

EEL 3100 Network Analysis and Design (3) EN EGE
PR: EGN 3373 or equivalent. Second course in linear circuit analysis and design. Transient and steady-state responses of passive R-L-C networks to various functions.

EEL 3302 Electronics I (3) EN EGE
PR: EGN 3373. A course in the physical principles of electronic devices with emphasis on semiconductor electronics. Includes the analysis and design of amplifiers and switching circuits.

EEL 3410 Fields and Waves I (3) EN EGE
PR: MAP 2302 and PHY 2049. A basic introduction to electromagnetic field theory, including static and dynamic electromagnetic fields.
EEL 4756 Signal and Image Processing (3) EN ESB
PR: EGN 4450, EEL 4851C. Sampling and quantization of signals and images; frequency-domain representations, transforms, filtering, convolution, and correlation; low-level image analysis algorithms; color images; fast methods and parallelism.

EEL 4781C Distributed Processing and Computer Networks (3) EN ESB
PR: COP 4600, CDA 4100. Design and analysis of distributed processing systems. Covers communication hardware and software, network operating systems, and reliability enhancement techniques.

EEL 4851C Data Structures (3) EN ESB
PR: CDA 3100, COP 3514. Fundamentals of data organization for purposes of program efficiency, clarity and simplicity will be addressed.

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

EEL 4906 Professional Issues and Engineering Design MW (2) ENEGE
PR: EEL 4102; CR: EEL 4305, EEL 4657, EEL 4744. An introduction of engineering design with applications specific to practical engineering problems. Included are discussion of real-world issues as economics, safety, ethics and the environment.

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 5316 Wireless Circuits and System Design Laboratory (2) EN EGE
PR: EEL 4936. An extensive hands-on introduction to wireless radio frequency and microwave circuits and systems, involving modem measurements, fabrication and computer-aided design experiences at both component and subsystem levels. Not available on an S/U basis.

EEL 5316L Wireless Circuits and Systems Design Laboratory (2) EN EGE
PR: EEL 4936. An extensive hands-on introduction to wireless radio frequency and microwave circuits and systems, involving modem measurements, fabrication and computer-aided design experiences at both component and subsystem levels. Not available on an S/U basis.

EEL 5344C 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 circuits 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

EEL 5382 Physical Basis Of Microelectronics (3) EN EGE
PR: EEL 4472 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 5437 Microwave Engineering (3) EN EGE
PR: EEL 4472, EEL 4102, or GS. Introduction to passive and active components, devices, and circuits, including transmission lines and waveguides, employed in microwave integrated circuits and systems.

EEL 5462 Antenna Theory (3) EN EGE
PR: EEL 4472 or GS. Antenna theory beginning with fundamental parameter definitions and continuing with mathematical concepts, elemental antennas and arrays.

EEL 5572C Local and Metropolitan Area Networks (3) EN EGE
PR: EEL 4512 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 and MAN architectures and protocols-IEEE 802.x LAN Standards; High speed LANs such as FDDI, IEEE 802.6 MAN, etc., Internetworking; LAN/MAN Design and selections.

EEL 5631 Digital Control Systems (3) EN EGE
PR: EEL 4657 or GS. Introduction to digital data and digital control processes.

EEL 5754C Microprocessor Based Digital Signal Processing (3) EN EGE
PR: EEL 4705 or CI. Arithmetic systems, processing structures, efficient algorithms, DSP hardware, TI, NEC and other DSP microprocessors, multiprocessors, hardware and software. System development. Application to telecommunications and voice processing.

EEL 5771 Introduction to Computer Graphics I (3) EN ESB
PR: EEL 4851C. An introduction to the evolution of computer graphics including point-plotting, line drawing, two-dimensional transformations and graphics software packages.

EEL 5935 Special Electrical Engineering Topics I (1-3) EN EGE

EEL 5936 Special Electrical Engineering Topics II (1-3) EN EGE

EEL 5937 Special Electrical Engineering Topics III (1-3) EN EGE

EEX 4011 Foundations of Special Education (3) ED EDS
DPR. Characteristics and needs of children who have learning disabilities, emotional disabilities, hearing impairments, mental retardation, physical handicaps, speech impairments, visual limitations, and who are gifted and talented.

EEX 4054 Perspectives on Learning and Behavioral Differences (3) ED EDS
<course PR: EEX 4011. The purpose of this course is to introduce students to the historical and theoretical perspectives on educating students with learning and behavioral differences, develop a critical understanding of current practices in service delivery systems, and examine professional issues and trends that impact the future of the field.

EEX 4070 Integrating Exceptional Students in the Regular Classroom (2-3) ED EDS
No credit for department majors. Designed for non-special education majors. Includes basic identification techniques and strategies to promote academic and social integration and interaction of "mainstreamed" exceptional students. Concurrent field experience projects are included.

EEX 4221 Educational Assessment of Exceptional Students (3) ED EDS
PR: EDF 3214 and EEX 4011. Taken concurrently with EED 4941, ELD 4941, or EMD 4941 and EEX 4846. DPR. Introduction to assessment of exceptional students through formal and informal techniques. Emphasis placed on the interpretation of information for educational programming and individualization of instruction.

EEX 4243 Education of the Exceptional Adolescent and Adult (3) ED EDS
PR: EEX 4011 or equivalent or DPR. Procedures for implementing educational programs for exceptional adolescents and adults. Topics include service delivery, curriculum, academic remediation, advocacy, utilization of ancillary services, alternative programs, and community resources.

EEX 4404 Behavior Management for Special Needs and at Risk Students (3) ED EDS
PR: EEX 4011. Taken concurrently with EED 4941, ELD 4941, or EMR 4941. Techniques to prevent, analyze, and manage challenging and disruptive classroom behavior as well as teaching social skills.

EEX 4472 Narrative Perspectives on Exceptionality: Cultural and Ethical Issues 6A LW (3) ED EDS
DPR. This course is designed to use literature as a way to interpret the lives of individuals with disabilities, their families and those who play an educational role in their lives. The course also addresses cultural and ethnic diversity so as to better analyze the role of ethics and values in decisions made pertaining to individuals with disabilities.

EEX 4846 Clinical Teaching in Special Education (3) ED EDS
PR: EEX 4011. Taken concurrently with EED 4941, ELD 4941, or EMR 4941 and EEX 4221. DPR. Effective teaching principles, instructional management procedures, and specialized teaching techniques for exceptional students.
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EEX 4905 Independent Study: Exceptional Student Education (1-3) ED EDS
PR: DPR. S/U only. Specialized independent study determined by the student's needs and interests.

EEX 4909 Directed Study: Exceptional Student Education (1-3) ED EDS
PR: Senior standing. DPR. To extend competency in teaching field.

EEX 4936 Senior Seminar in Exceptional Student Education (1) ED EDS

EEX 4940 Internship: Exceptional Student Education (1-10) EDEDS
CP: EEX 4936. S/U only. One full semester of internship in an accredited public or private school.

EEX 4941 Practicum in Exceptional Student Education (1-4) EDEDS
CP: Sem I: EEX 4011; Sem II: EEX 4004; Sem III: EEX 4221 and EEX 4846. Designed to provide teacher candidates with carefully planned and supervised clinical experiences with exceptional students placed in a variety of settings. Candidates demonstrate the ability to apply concepts, theories and research. Repeatable up to six credit hours.

EEX 5705 Seminar in Preschool Handicapped (2) ED EDS
Introduction to the education student with the wide range of needs and services of the preschool children with disabilities and their families and how they coordinate with educational services.

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

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 and 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.

EGI 5325 Theory and Development of Creativity (3) ED EDS
Exploration of the concept of creativity, its factors, measurement, and application to education. Opportunities are given to work with children in a laboratory setting and to prepare materials to be used with small groups of children.

EGN 2031 Statics (3) EN EGB

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

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) ENEGB
PR: PHY 2049. Thermodynamic concepts of energy, entropy, work and heat and thermodynamic cycles. Basic concepts of fluid mechanics, including viscosity, friction, 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: EGN 3311. Structure and property relationships in engineering materials, i.e., metal, ceramic and polymer systems. Environmental effects are also treated.

EGN 3373 Electrical Systems I (3) EN EGB

EGN 3374 Electrical Systems II (3) EN EGB
PR: EGN 3373. Electrical/electronic circuits and systems.

EGN 3375 Electromechanical Systems (3) EN EGB

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

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
PR: MAC 2282. An introduction to engineering economic principles and techniques used in design and presentation.

EGN 3613C Engineering Economy I (3) EN EGB

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

EGN 4450 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 (3) EN EGB
PR: MAC 2282. An introduction to the basic concepts of statistical analysis with special emphasis on engineering applications.

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

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

EGN 4941 Engineering Applications for Vector Analysis (3) ENEGB
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 Natural Networks and Mathematical 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.

EGS 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. Includes historical, current and future implications of technology in society.

EIA 4360 Special Teaching Methods: Technology Education (3) ED EDV
Equps Technology Education instructors with professional competences 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 4312C Work Analyses (3) EN EGB
PR: EGN 3613C, EGN 3443; CP: AGC 3074. Operation analysis and workspace design, work measurement, standard data, ergonomics, and labor costs.

EIN 4313C Human Factors (3) EN EGS
Design of man-machine systems, by taking into consideration both human and machine capabilities and limitations.

EIN 4333 Production Control (3) EN EGS
PR: ESI 4312C. Planning and control of production systems. Includes: scheduling and inventory control models, scheduling and sequencing, MRP, CPM/PERT, and resource requirements.

EIM 436 Facilities Design I (3) EN EGS
PR: EIN 4312C, EIN 4411; CP: ESI 4221, EIN 4333. Design and modification of industrial production and material handling facilities. Basic analysis techniques, use of computer programs, automated warehousing.

EIN 4365 Facilities Design II MW (3) EN EGS
PR: EIN 4364; CP: ESI 4523. CAD/CIEM, complete design of a plant facility. Course to use computers and software geared toward plant design and operation. A team of students is to be responsible for the complete project.

EIN 4411 Manufacturing Processes (3) EN EGS
PR: EGN 3365. The study of basic manufacturing processes and precision assembly. CAD/CAM including NC programming.

EIN 4601L Automation and Robotics (3) EN EGS
PR: EIN 4411. Introduction to the practices and concepts of automation as applied to material handling, inventory storage, material transfer, industrial processes and quality control.

EIN 4933 Special Topics in Industrial Engineering (1-6) EN EGS
Special topics related to economic analysis, optimization, human factors, manufacturing and automation aspect of industrial systems. Repeatable up to 5 credit hours.

EIN 5245 Work Physiology and Biomechanics (3) EN EGS
PR: CC, majors only. Human physiological limitations encountered in design, analysis and evaluation of man-machine systems.

EIN 5322 Principles of Engineering Management (3) EN EGS
Introduction to the fundamentals of planning, organizing and leadership as needed by engineers, scientists, and other professionals in management positions.

EIN 5357 Engineering Value Analysis (3) EN EGS
PR: EIN 5219 or equiv., majors only Statistical models for analyzing engineering alternatives from an economic viewpoint. The use of advanced engineering economy concepts in solving industrial problems.

EIN 5914 Special Industrial Projects I (1-3) EN EGS
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 4011 Introduction to Specific Learning Disabilities (3) EDEDS
PR: EFX 4011 or DFR. 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 EDEDS
PR: DFR, S/U only. Specialized independent study determined by student's needs and interests.

ELD 4909 Directed Study: Specific Learning Disabilities (1-3) EDEDS
PR: Senior standing. To extend competency in teaching field.

ELD 4941 Undergraduate Supervised Practicum in SLD (1-6) EDEDS
PR: EFX 4011. S/U only. DFR. Supervised field experiences in assessment, behavior management and clinical teaching with classes for children who have specific learning disabilities.

ELR 3301L EE Circuits Laboratory (1) EN EGE
PR: EGN 3373. Basic circuit theory applications; computer-aided design tools, electrical measurement techniques.

ELR 3302L EE Electronics Laboratory (1) EN EGE

ELR 4316L Wireless Circuits & Systems Design Laboratory (2) EN EGE
An extensive hands-on introduction to wireless radio frequency and microwave circuits and systems, involving modern measurements, fabrication and computer-aided design experiences at both component and sub-system levels. Not available on an S/U basis.

EMA 4324 Corrosion of Engineering Materials I (3) EN EGX
PR: EGN 3365L. Principles of electrochemical corrosion and the representation of corrosion processes by polarization diagrams. Origin and prevention of the localized forms of corrosion and approaches to corrosion control.

EMA 5326 Corrosion Control (3) EN EGX
Provide understanding of corrosion fundamentals. Introduce design for corrosion detection, protection, and control. Acquire research project experience.

EME 2040 Introduction to Computers in Education (3) ED EDK
Introduction to microcomputer technology and its function in the classroom to augment the teaching and learning processes. Topics include the critical evaluation of educational software; conceptualizing uses of computers in the classroom in terms of computer-directed instruction, computer-enhanced instruction, and computer-managed instruction; understanding hardware; using and applying commercial coursework, general applications software, word processors, database managers, etc., and disk operating systems.

EME 5403 Microcomputers in Education (3) ED EDK
A survey course designed to introduce practicing teachers to microcomputer technology and its function in the classroom to augment the teaching and learning processes. Objectives include the use and evaluation of educational software, classroom use of computers, instructional computing research, generic applications software (word processors, database managers, etc.), programming, disk operating systems, and microcomputer hardware.

EME 5404 Computer Methods (4) EN EGR
PR: MAP 2302. Techniques to solve engineering problems using numerical methods and digital computers. Topics include roots of equations, simultaneous linear equations, numerical integration and differentiation, and computer-aided design.

EML 3262 Kinematics and Dynamics of Machinery (3) EN EGR
Kinematics of machines and mechanisms; position, velocity, and acceleration analysis of mechanisms; cams, gear trains; inertia forces in mechanisms; flywheels; balancing of rotating masses.
EML 4601 Air Conditioning Design (3) EN EGR

EML 4985 Independent Study (1-4) EN EGR
PR: CI. Specialized independent study determined by the student's needs and interests.

EML 4930 Special Topics in Mechanical Engineering (1-4) EN EGR
PR: CC.

EML 5107 Internal Combustion Engines (3) EN EGR
PR: EML 4106 or CI. 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 mechanism and emission control of exhaust pollutants.

EML 5245 Tribology (3) EN EGR
PR: EML 4501. Introduction to friction, lubrication and wear. Contact of real surfaces, mechanics of friction, surface failures, boundary lubrication fluid properties, thin film lubrication, thick film lubrication, bearing and lubricant selection.

EML 5325 Mechanical Manufacturing Processes (3) EN EGR
PR: EML 3365. Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.

EML 5422 Internal Combustion Engines (3) EN EGR
PR: EML 4106C or CI. 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.

EML 5930 Special Topics II (1-4) EN EGR
PR: CC.

EML 5931 Special Topics IV (1-4) EN EGR
PR: CC.

<Body>
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.

The evolution of language from Anglo-Saxon through Middle English to Modern English. Development of the English lexicon. Changes in the pronunciational, syntactic, and semantic systems; discussion of the forms which influenced them.

A study 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.

A survey of a 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.

A survey of 17th Century and Neoclassical Literature, including such figures as Donne, Herbert, Crashaw, Vaughan, Marvell, Milton, Pope, Swift, Johnson, Boswell, and Goldsmith.

A survey 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.

A special course for students learning English as a second language. Intensive study and drill in American English pronunciation and listening comprehension.

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.

The study of two to four advanced technical writing 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.

An intensive study of The Canterbury Tales and major critical concerns.

A critical study of British novel from 1890 to the present, with emphasis on such writers as Conrad, Lawrence, Joyce, Woolf, Huxley, Orwell, Burgess, Murdoch, Golding, and others.

The study of poet and major prose of John Milton, with special emphasis on Paradise Lost.

A special study of Shakespearean texts, both in the Elizabethan and Jacobean cultural setting.

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.

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.

A special course for students learning English as a second language. Intensive study and drill in American English pronunciation and listening comprehension.

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A special study of Shakespearean texts, both in the Elizabethan and Jacobean cultural setting.
aspects of hazardous waste management from within the plant to
find a comprehensive history of hazardous waste cleanup leading to
cERCLA and its amendments, site investigations; site control; those
aspects of treatment that are unique to remedial action. (PR:
undergraduate preparation in environmental engineering or an
environmental science program)

ENV 5345 Solid Waste Control (3) EN EGX
PR: CI. Introduction to solid waste management, including its de
inition as an umbrella for hazardous waste: regulatory concepts;
aste types, economics, and characterization; cleanup leading to
ampling; facility siting; disposal; thermal treatment. (PR: undergraduate
paration in environmental engineering, or graduate standing in
vironmental engineering or an environmental science program)

ENY 5231 Introduction to Entomology (3) AS BIO
PR: BSC 2010 and BSC 2011. An introduction to general aspects of
sect morphology, development, and classification. The identifica
of local forms will be emphasized. Lec.-lab.

ENY 5905 Aquatic Entomology (3) AS BIO
PR: ENY 3004 or CI. Taxonomy, development, and ecology of aquatic
sects with emphasis on local forms. Lec.-lab.

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

EPF 5321 Educational Strategies for Physically and Multi
disabled Students (3) ED ED
PR: EPH 5051. Educational management of students with cerebral palsy, motor disabilities and multi
disabled conditions including rehabilitation and other community services.

ESI 4161C Computers in Industrial Engineering (3) EN EGB
PR: EGN 2215. Use of micro and mini computer systems for industrial
engineering applications. Review of available software packages.
Use of computers for CAD/CAM System.

ESI 4221 Industrial Statistics and Quality Control (3) EN EGS
PR: EGN 4443, EIN 4411. 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 4443. Activity forecasting models and control. Design and use
of inventory control models, both designs applicable to engi
neering analyses. Analysis of variance and regression.

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

ESI 4313 Non-Deterministic O. R. (3) EN EGS
PR: EGN 4443. Probabilistic models in Operations Research. Dis
crete and continuous time processes, queuing models, inventory
models, simulation models, Markovian decision process and deci
dion analysis.

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. Introduc
tion 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.

ESI 4911 Senior Project (2) EN EGS
PR: EIN 4364, CP: EIN 4333, ESI 4523. Analysis and design of
systems in a directed project format. Individual or group work
consisting of project proposal, project activities, and final report. Students' projects are directed by faculty with chairman's approval.

ESI 5219 Statistical Methods For Engineering Managers (3) EN EGS
Not open to students who have had EGN 4443. Study of statistical methods applicable to engineering management problems involving estimation and prediction under conditions of uncertainty.

ESI 5236 Reliability Engineering (3) EN EGS
PR: ESI 5219 or equiv., majors only. Study of reliability, maintenance, and reliability.

ESI 5306 Operations Research For Engineering Management (3) EN EGS
Not open to students who have had ESI 4315. ESI 5219 or equiv.,
majors only. Linear programming, non-linear programming, queuing,
ventory, network analysis.

ESI 5790 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
imization.

ESI 5522 Computer Simulation (3) EN EGS
PR: ESI 4521 or equiv., majors only. Design of discrete and continuous simulation models, Model validation and verification. Statistical analysis of simulation model output.

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.

ETI 4666 Principles of Industrial Operations II (3) EN ESB
PR: CC. No credit for Engineering Majors. Application of techniques
devolved to the operation of an industrial firm through special projects.

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

EUH 2012 Ancient History II HP (3) AS HTY
An introductory survey of ancient history. EUH 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, A.D. 395.

EUH 2021 Medieval History I HP (3) AS HTY
A thematic survey of the Middle Ages. EUH 2021 deals with the
nascent, Christian civilization of Europe, circa 300-1050 A.D.

EUH 2022 Medieval History II HP (3) AS HTY
A thematic survey of the Middle Ages. EUH 2022 treats the mature medieval civilization of Europe, circa 1050-1300.

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

EUH 2031 Modern European History II HP (3) AS HTY
A thematic survey of Europe in the modern age. EUH 2031, from the
French Revolution to the present.

EUH 3142 Renaissance and Reformation (4) 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 History (4) AS HTY
A survey of thread, culture, and art in 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 (4) 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 (4) 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 (4) AS HTY
An inquiry into the nation, distribution, and use of political power
during the Middle Ages, in such institutions as feudalism, monarchy,
cities, and the church.

EUH 3202 History of 17th and 18th Century Europe (4) 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 (4) AS HTY
A comparative study of economic, political, social, and intellectual
developments in nineteenth century Europe.

EUH 3206 History of Twentieth Century Europe (4) AS HTY
A comparative study of economic, political, social, and intellectual
developments in twentieth century Europe.

EUH 3401 Classical Greece (4) AS HTY
A study of ancient Greece focusing on the brilliant period following the Persian Wars, but emphasizing 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 (4) AS HTY
A study focusing on the reign of Alexander the Great and 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 (4) 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

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EVR 4905 Independent Study   (1-6) AS ESP
A study of Imperial Roman from the assassination of Julius Caesar in 44 B.C. to the death of the emperor Constantine in A.D. 337. Emphasized Rome's government of a vast Mediterranean empire including much of the near East and Europe.

EVR 3461 German History to 1870   (4) AS HTY
A political, social, and cultural approach to the history of the Germanys from 500 through 1870. The emphasis on the Protestant Reformation, the rise of Brandenburg-Prussian, and the unification under Bismarck.

EVR 3462 German History 1870 to the Present   (4) 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.

EUS 3022 Russia  SS HP AF (3) AS INT
A political, social, and cultural approach to the history of the Russian 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.

EVR 3501 British History to 1688   (4) AS HTY
A study of major developments in British history from the 15th century to 1688.

EVR 3502 British History 1688 to Present   (4) 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.

EUS 3574 History of Imperial Russia, 1689-1917   (4) AS HTY
A survey of political, social, 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 culture of the Imperial court, peasant rebellions, social and legal reforms, the role of the West, and the collapse of the Romanov dynasty.

EVR 3576 History of the Soviet Union, 1917-1991   (4) 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.

EUS 3000 Europe 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.

EUS 3022 Russia SS HP 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.

EVR 2001 Introduction to Environmental Science NS (3) AS ESP
CP: EVR 2001L. An introductory lecture course linking the human and physical/ biological world. The lab will develop an understanding of population and resource interactions.

EVR 2001L Environmental Science Lab (1) AS ESP
CP: EVR 2001. 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 2861 Introduction to Environmental Policy (3) 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 (3) 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 4900 Directed Readings (1-6) AS ESP
To provide advanced students with interdisciplinary research experience in areas of specific interest.

EVR 4905 Independent Study   (1-3) AS ESP
To provide advanced students with the opportunity for independent study in areas of specific interest.

EVR 4910 Environmental Science and Policy Project   (3) AS ESP
Open to senior majors only. S/U only. Environmental science project consisting of research in a field related to environmental science/ environmental policy. Supervised by a faculty member.

EVR 4921 Environmental Science and Policy Seminar   (1) AS ESP
Restricted to senior majors. S/U only. A topical reading and discussion seminar focusing on the interdisciplinary nature of environmental science and environmental policy.

EVR 4930 Selected Topics   (1-4) 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 faculty involved. All areas of Environmental Science, Policy, Ethics and Law are included.

EVR 4940 Environmental Science Internship   (3) AS ESP
Open to senior majors only. S/U only. The purpose of this course is to promote 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) EDEDV
An overview of current policies and principles in vocational education including their historical, sociological, and philosophical bases. Open to majors and non-majors.

EVT 4084C 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
Designs the 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. Reviews a wide 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
Focuses on 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 4591 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
S/U only. Specialized independent study determined by the student's needs and interests.

EVT 4999 Directed Study: Industrial-Technical Education (1-3) ED EDV
To extend competency in teaching field.

EVT 4936 Senior Seminar in Industrial-Technical Education (2) ED EDV
PR: Senior standing; CP: EVT 4940. Synthesis of teacher candidate's directed study, directed through participation in a complete college program.

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

EVT 4946 Supervised Field Experience: Industrial-Technical Education (1-6) ED EDV
S/U only. Planned supervised functions in the area of specialization and coordinated with selected schools, government, offices, social agencies, businesses and industries on site.
FIN 2395 Selected Topics in Finance  
- Not available for credit to upper-level students who have been admitted to the College of Business Administration. Topics to be selected by the department chair.

FIN 3233 Money and Banking  
- PR: FIN 3403. Examines the structure and operations of our monetary system, commercial banking, central banking, money, and capital markets, and provides an introduction to monetary theory and policy.

FIN 3403 Principles of Finance  
- PR: ECO 2071 or CI and ECO 2033. Study of the processes, decisions, 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 certain 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  
- PR: ECO 2013 and FIN 3403 or CI. Study of factors affecting international business, assessment of risks, international management, finance, institutions and instruments of international business finance.

FIN 4245 Federal Reserve System and Monetary Policy  
- 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  
- PR: FIN 3403. A study of financial institutions and their roles in the capital market. Includes capital market allocation, investment, and financial decision making processes.

FIN 4324 Bank Management  
- PR: FIN 3403 and FIN 3233. 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  
- PR: FIN 3403. An examination of short-term financial management; i.e., 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  
- PR: FIN 4504. An examination of the financial policies of corporations, with special reference to dividend policy, financial structure, capital expenditures, acquisitions, mergers, and reorganization.

FIN 4443 Financial Policies and Strategies  
- 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  
- PR: FIN 3403. Provides an understanding of the relationship between financial statements provided 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  
- PR: ECO 2013 and FIN 3403. Survey 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 upon the valuation process.

FIN 4514 Advanced Investment Analysis and Management  
- 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  
- PR: CI. S/U only. Specialized independent study determined by the students’ needs and interests.

FIN 4915 Independent Research  
- PR: CI. Individual study conducted with instructor and department chairperson. The research project will be mutually determined by the student and instructor.

FIN 4934 Selected Topics in Finance  
- PR: FIN 4504. Topics to be selected by instructor and department chairperson on pertinent finance issues.

FLE 4290 Technology in the Foreign and Second Language Classroom  
- PR: CI. 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 Foreign Language Teaching 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 4315 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 4316 Language Principles and Acquisition (2-3) ED EDX
PR: FLE 4316. 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 4333 Foreign Language Teaching in the Secondary School (3) ED EDX
PR: FLE 4314. Fluency in the target language and in English or DPR. Methods of teaching foreign languages within a communicative framework. Includes examination and practice of current instructional techniques in listening, speaking, reading and writing skills, teacher error correction, and computer-assisted language instruction. The emphasis is on teaching foreign languages and teaching for cultural understanding at the secondary level 7-12.

FLE 4365 ESOL Competencies and Strategies (1-3) ED EDX
Designed to enable the student 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) EDEX

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.

FOL 3100 General Foreign Language I (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 4200 or equiv., CC

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

FRE 1000 French For Reading (3) AS WLE
Designed to provide a reading ability in French that will support research in other disciplines. Primarily for graduate students.

FRE 1120 Beginning French I (4) AS WLE
CP: FLE 1200. 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 1120L Beginning French I Laboratory (1) AS WLE
CP: FRE 1120L. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. Laboratory designed to offer additional practice using various instructional technologies and media.

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

FRE 1121L Beginning French II Laboratory (1) AS WLE
CP: 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 3230 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 course 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 Overseas Study (1-6) 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 (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 course in French civilization and culture including a study of recent social, artistic and political trends as well as various current intellectual movements. Text and discussions in French.

FRT 3001 Great French Love Stories in Translation MW (3) AS WLE
An overview of the evolution of the concept of romantic and passionate love in French literature throughout the centuries and its impact on western literature and thought.

FRT 3314 French Literary Masterpieces in English Translation 6A 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 6A MW LW (3) AS WLE
PR: FRE 3230, FRE 3420 or CI. Study of the most representative novels from the 17th - 20th centuries in France, examining literary movements, ideas, and techniques.

FRW 4101 Introduction to French Drama and Poetry 6A MW LW (3) AS WLE
PR: FRE 3230. A study of the history of drama and poetry. Will include medieval drama, Racine, Corneille, Molieres, Anouili, Sartre, Ionesco and others. Will also include Villon, Ronsard, DuBellay, Lamartine, Hugo, Vigny, Musset, Baudelaire, Mallarme, Rimbaud, Valery, Pogany, Eluard, Apollinaire, Char, and others. Course content may vary from year to year.

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 5555 Classical Drama (3) AS WLE
PR: FRW 4101. Corneille, Molieres, and Racine.

FRW 5615 Life 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 5625 Life 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 5545 18th Century Literature (3) AS WLE
PR: FRW 4100. The classical tradition and the new currents of thought in the Age of Enlightenment.

FRW 5520 Pre-Romanticism (3) AS WLE

FRW 5555 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 5556 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 5934 Selected Topics (1-3) AS WLE
PR: Upper-level undergraduate standing. Study of an author, movement or theme.

GEO 2000 World Regional Geography SS HP AF (4) AS GPY
Comparative and analytical analysis of representative regions of the world with emphasis on cultural, political, economic, environmental, and physical diversity.

GEO 3194 Regional Geography (4) AS GPY
Variable title course to systematically study and compare special regions identified by the instructor.

GEO 3300 Geography of Middle America (4) AS GPY

GEO 3405 Geography of Latin America 6A (4) AS GPY

GEO 3500 Geography of Europe 6A (4) AS GPY

GEO 3554 Geography of the USSR (4) AS GPY

GEO 3600 Geography of Africa (4) AS GPY

GEO 3703 Geography of Asia (4) AS GPY

GEB 2350 Doing Business Around the World SS (3) BA GBA
This course introduces the student to: 1) the nature of international business; 2) the framework of international organizations and the monetary systems within which international business functions; 3) forces affecting international business, and 4) management responses to problems caused by international environments.

GEB 2935 Selected Topics in Business (1-6) BA GBA
Topics to be selected by department chair.

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

GEB 4915 Independent Research (1-4) BA GBA
PR: CI. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor.

GEB 4935 Selected Topics in Business Administration (1-4) BA GBA
The content and organization of this course will vary according to the current interests of the faculty and needs of students.

GEO 1930 Geography of Current Events SS (4) AS GPY
Application of basic geographic principles of the analysis of contemporary events in various parts of the world.

GEO 2041C Map Interpretation (4) AS GPY
Analysis and synthesis of various types of maps and map projec-
GED 4700 Political Geography MW (4) AS GPY
PR: GEO 3402 or CI. The geographic factors underlying political decisions and influencing their outcome; the geographic consequences of these decisions; geopolitics.

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

GED 4604 Advanced Urban Geography MW (4) AS GPY
PR: GEO 3402, GEO 3602, or CI. Intensive examination of issues such as economic restructuring and inner-city decline, ghetto formation, gentrification, transportation, and policy-making.

GED 4700 Transportation Geography (4) AS GPY
PR: GEO 3402 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.

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

GED 4910 Individual Research (1-4) AS GPY
PR: 20 hours in geography and CI prior to registration.

GED 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.

GED 5134C Advanced Remote Sensing (3) AS GPY
PR: GS in Geography or CI, GEO 4124C. Study of digital image processing techniques. Topics include geometric and radiometric normalization, and classification algorithms with emphasis on developing.

GED 5157 Advanced Geographic Information Systems (3) AS GPY
PR: GS in Geography or CI. Spatial problem solving utilizing GIS mapping and statistical methods. The course is designed to give students hands-on experience in using computerized techniques for geographic analysis.

GED 5177 GIS for Non-Majors (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.

GED 5215 Advances in Geomorphology (3) AS GPY
PR: GEO 4372 or CI. Advanced examination of geomorphic processes and landforms with an emphasis on Florida.

GED 5263 Advances in Soils (3) AS GPY
PR: GEO 4372 or CI. Examination of how earth systems influence soil formation and variation. Details analysis of soils clima sequences, biosequences, toposequences, lithosequences, chronosequences, and anthroposequences.

GED 5288 Hydrological Systems (3) AS GPY
PR: GEO 4372 or CI. A systematic approach to hydrology using the drainage basin as the fundamental unit of analysis is used to explore form and process, while modeling streamflow.

GED 5347 Advances in Natural Hazards (3) AS GPY
PR: GEO 4372 or CI. Analysis of natural hazards integrating processes of physical, social, economic, political, and technical forces that affect extreme geophysical events.

GED 5475 Advanced Political Geography (3) AS GPY
PR: GEO 4470 or CI. Advanced investigation of geopolitical issues including: the human construction of territoriality, ethnic relations, the making of nations and states, the geopolitics of localities, and environmental policy making.

GED 5545 Advanced Economic Geography (3) AS GPY
PR: GEO 4502 or CI. An intensive examination of selected issues in economic geography including: regional development and decline; spatial labor market trends; business locational analysis; and comparative economic policy.

GED 5605 Contemporary Urban Issues (3) AS GPY
PR: GEO 3602; GEO 4604; or CI. Advanced survey of urban issues such as: industrial restructuring and urban development, inner-city ethnic relations, the geopolitics of urban governance, and urban cultural trends.

GED 5704 Advanced Transportation Geography (3) AS GPY
PR: GEO 4114; GEO 4700; or CI. Review of transportation issues and analysis, focusing on modeling and planning for flows of goods and people. Provides a hands-on approach to use of GIS for such analysis.

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

GER 1121L Beginning German I Laboratory (1) AS WLE
CP: 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. CP: 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
CP: 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 1122 Beginning German II (4) AS WLE
PR: GER 1121 or equivalent. A review of the basic structure of spoken and written German. May be taken concurrently with GER 2201.

GER 2201 German IV (3) AS WLE
PR: GER 1121 or equivalent. Readings in German on the intermediate level. May be taken concurrently with GER 2200.

GER 2204 Conversation I (3) AS WLE
PR: GER 1121. For development of basic conversational skills.

GER 3420 Composition I (3) AS WLE
A fundamental course for students who have completed GER 2200 or GER 2201.

GER 3440 German for Business and International Trade (3) AS WLE
PR: GER 2200, or CI. An introduction to the German language in ordinary business transactions.

GER 3500 German Civilization (3) AS WLE
PR: GER 2200 or GER 2201. Readings in German on the cultural history of Germany.

GER 4410 Conversation II (3) AS WLE
Free conversation based on the current German idiom.

GER 4421 Composition II (3) AS WLE
Practical training in modern German usage and differences of style.

GER 5605 Goethe (3) AS WLE
Selected novels, poetries, Werther, Wahlverwandtschaften, Wilhelm, Meister, Westostlicher, Divan.

GER 5845 History of the German Language (3) AS WLE
A diachronic approach to the study of the German language. The course traces the history and development of the language from Indo-European through Germanic, Old, Middle, and New High German.

GET 3100 German Literature in English Translation MW (3) AS WLE
Analysis and interpretation of selected major works of German literature, to be read in English, with regard to their thought content and relevance to our thoughts and actions.

GEW 4100 Survey of German Literature I (4) AS WLE
Old High German and Middle High German literature in modern German translation; the literature of Humanism and Baroque, the classical period.

GEW 4101 Survey of German Literature II (4) AS WLE
The romantic period, 19th and 20th centuries.

GEW 4900 Directed Study (1-3) AS WLE
Departmental approval required.

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

GEW 5475 20th Century Literature to 1945 (3) AS WLE
A study of major styles in German literature from 1900 to WWII with emphasis on Hauptmann, Schnitzler, Hofmannsthal, George Rilke, Kaiser, Heym, Trakl, Thomas Mann, Hesse, Kafka, Benn, Brecht.

GEW 5489 20th Century Literature: 1945 to Present (3) AS WLE
A study of major trends in German literature since WWII with emphasis on Borchert, Frisch, Durrenmott, Boll, Uwe, Johnson, Grass, Aichinger, Eich Enzensberger, Bachmann.

GEW 5515 The Enlightenment (3) AS WLE
Selected dramas and critical writings by Lessing, Wieland, Kant.

GEW 5555 Realism (3) AS WLE
Selected works by Grillparzer, Grabbe, Buchner, Hebbel, Heine, Immerman, Stifter, Keller, Meyer, Storm, Raabe, Hufshulf, and Mommsen.

GEW 5606 Faust (3) AS WLE
Sources, form, content, and literary significance of Urfaust and Faust.

GEW 5615 Schiller (3) AS WLE
Selected dramas, philosophical, and aesthetic writings.

GEW 5934 Selected Topics (1-3) AS WLE
PR: Upper-level or graduate standing. Study of an author, movement or theme.
GEY 2000 Introduction to Gerontology SS (3) AS GEY
This course is designed to be an introduction to the study of aging. The aging process is viewed from a multi-disciplinary perspective including the biological, psychological, and sociological aspects of aging.

GEY 3323 Community Services for Older Adults (3) AS GEY
This class is designed to introduce students to services available to older adults and to careers in the field of aging services. Content includes theoretical and practical issues, as well as exposure to community resources and employment opportunities in the field.

GEY 3326 Aging in the 21st Century SS (3) AS GEY
This course presents current concepts, theories, and policies in the aging field. Emphasis will be placed on the impact of the aging Baby Boomers, in particular, their impact on the individual, family, government, and societal aging in the coming century. Consideration also is given to the post-baby boom era of the later 21st century.

GEY 3601 Physical Changes and Aging (3) AS GEY
A survey of normal and pathological physical changes occurring from middle age through older age. Course emphasis will be on basic age-related changes and their implications for behavior in older age.

GEY 3625 Sociocultural Aspects of Aging 6A SS AF (3) AS GEY
Consideration of human aging in a broad sociocultural context. Course emphasis will be on historical, philosophic, and demographic aspects of aging, theories of social gerontology, attitudes toward aging, and the age-related, cross-cultural, age-oriented, and societal aging in the coming century. Consideration also is given to the post-baby boom era of the later 21st century.

GEY 4322 Gerontological Case Management (3) AS GEY
This course examines the role and function of case management in meeting the needs of the older adult. All aspects of case management practice are covered, including the elements of the case management process as well as ethical and legal issues.

GEY 4326 Aging in the 21st Century SS (3) AS GEY
This course presents current concepts, theories, and policies in the aging field. Emphasis will be placed on the impact of the aging Baby Boomers, in particular, their impact on the individual, family, government, and societal aging in the coming century. Consideration also is given to the post-baby boom era of the later 21st century.

GEY 5647 Ethical and Legal Issues of Aging SS MW (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 the experience of grieving. Health care practices are considered in terms of their impact on community resources and employment opportunities in the field.

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 4835 Special Topics in Gerontology (3) AS GEY
Courses on topics such as preirement, mental health, human services organization, nursing home administration, the older woman, and elder abuse will be offered.

GEY 4945 Field Placement (1-3) AS GEY
PR: CI. Subject to availability of internship sites approved by the Department of Gerontology. 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 (8 hours).

GLY 2010 Dynamic Earth: Introduction to Physical Geology NS (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 2010L 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 geographic maps. Lab-lecture-trip.

GLY 2015L Essentials of Geology Laboratory (1) AS GLY
Fundamental concepts and skills of modern geology, including rock and mineral identification, landform identification, field analysis, and applications of computers in geology. Required field trip.

GLY 2030 Environmental Geology NS (3) AS GLY
May substitute for GLY 2010 for geology majors. A first course in geology emphasizing environmental aspects of the earth's crust, such as earthquakes, depletion of the earth's resources, water-supply problems, and geologic aspects of land use and planning.

GLY 2038 Earth and Environmental Geology NS (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 examine 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 2040 Origins: From the Big Bang to the Ice Age NS (3) AS GLY
May substitute for GLY 2010 for geology majors. The history of the cosmos, the origin of the universe, the solar system, and earth, evolution of life, great extinction's including the dinosaurs, evolution of the primates, and the environmental future of the planet. (For both non-science and science majors.)

GLY 2050 Science, Earth Life NS (5) AS GLY
May substitute for GLY 2010 for geology majors. The nature, history and philosophy of science intended for 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
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 life, 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 2930 Selected Topics in Geology  (1-3) AS GLY  
Does not count toward the geology major. Topical courses in geology of general interest.

GLY 3104 Geologic Time (4) AS GLY  
PR: 4 hours of geology, including GLY 2015L; BSC 2010 and BSC 2011 highly recommended. 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 3200 Mineralogy (4) AS GLY  
PR: GLY 2010, one year of chemistry, or CI. Principles of crystal chemistry, crystallography and mineralogy with emphasis on common rock-forming minerals. Lec.-Lab.

GLY 3311 The Solid Earth: Petrology and Geochemistry (4) AS GLY  

GLY 3400C Structural Geology (4) AS GLY  
PR: 12 hours of geology, MAC 2147 or equivalent or CI. Study of the origin and development of structural features of the earth's crust. Application of principles of geology, physics, and mathematics to understanding relationships of strata and interpreting structural features. Study of regional tectonics and major structural provinces. Lec.-Lab.

GLY 3420C The Solid Earth: Plate Tectonics and Earth Structure (4) AS GLY  
PR: 4 hrs. introductory geology including GLY 2xxx (Essential Geology Lab); MAC 2312 or equivalent; PHY 2048. Plate tectonic theory and its implication re: the formation of structural features on outcrop and regional scales. Field and geophysical tools for structural analysis. Required field trip. Lec.-Lab.

GLY 3554C 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 process-response systems 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 3610C Introduction to Invertebrate Paleontology (4) AS GLY  
PR: GLY 2100. BSC 2010 or equivalent strongly encouraged as background. Lectures cover 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: one semester of calculus and physics; two semesters of chemistry; a 2000-level geology course. 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 S/U for geology majors; S/U available for others.

GLY 3850 Geology For Engineers (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 engineering 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 XMW (3) AS GLY  
PR: Junior standing. Solar System exploration, from Aristotle to NASA. Modern views on the origins of meteorites, the Moon, Mars, Venus, 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) AS GLY  
PR: 2000 level geology course. History of thinking about the Earth: context - geologic controversies; emphasis - geologic reasoning.

GLY 4145 Computational Geology (3) AS GLY  

GLY 4310 Petrology (4) AS GLY  
PR: GLY 3200, CI. The formation of igneous and metamorphic rocks in varying tectonic environments. Emphasis is placed on the identification of igneous and metamorphic rocks in hand specimens and thin sections. Lec.-Lab.

GLY 4550 Depositional Systems (4) AS GLY  
PR: GLY 4552C. Study of modern sedimentary environments and their relationships to one another in order to understand environments preserved in the rock record. Physical, chemical, and biological aspects of terrestrial, transitional and marine sedimentary environments will be examined in light of their eventual preservation in the stratigraphic record.

GLY 4552C Sedimentary Geology and Geochemistry (4) AS GLY  
PR: GLY 2010, GLY 3200, and one year of chemistry. A lecture and laboratory class that integrates knowledge of the lithosphere, atmosphere, biosphere, hydrosphere, and cyrosphere to study the sedimentary rock record. Examination of the rock record to solve problems in sedimentary geology.

GLY 4700 Geomorphology (4) AS GLY  
PR: Senior or advanced junior standing or CI. Origin, evolution and distribution of land forms and soils. Dynamics of the earth's surface. Lec.-Lab-field trips.

GLY 4734 Beaches and Coastal Environments MW (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 the environment and how human activities have and will impact them. Consideration of coastal management policies involving economics, ethics, ecology, and environmental law.

GLY 4780 Geologic 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. Trip requires camping and vigorous physical activity. Lec. Field trip.

GLY 4805 Geology and Development of Modern Africa MW (3) AS GLY  
An in-depth look at how geology has affected the politics, history and culture of Africa. Units include the Nile and hydropolitics, deserts and climate, rifting and hominid evolution, and mining and politics.

GLY 4822 Introduction to Hydrogeology (4) AS GLY  
PR: GLY 2010, advanced junior or senior standing, one year each of physics and calculus or CI. Ground-water flow systems, ground-water geology, introduction to mathematical models of ground-water flow. Lec.-Lab-field trips.

GLY 4905 Independent Study (1-3) AS GLY  
PR: CI. S/U 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. S/U only. Weekly topical lectures by faculty, graduate students and invited speakers.

GLY 4921 Geocommunication (3) AS GLY  
A course in communicating within the disciplines of 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 science courses. Course is open
to anyone majoring in geology, geography, anthropology or environ-
mental 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
Each topic is a course under the direction of a faculty member with the content depending on the interests of the students and faculty involved. All areas of geology included.

GLY 4947L Practical and Applied Geology (1) AS GLY
PR: at least two upper-level courses required for the major. Modular course designed to give students field and laboratory experience. It is composed of one-credit modules taught by various members of the Geology faculty focusing on a range of geologic issues and problems.

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 CI. 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.

GLY 5885 Statistical Models in Geology (3) AS GLY
PR: STA 2023 or equivalent or CI. 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.-lab.

GLY 5932 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.

GRE 1120 Beginning Classical Greek I (4) AS WLE
An introductory course in classical Greek grammar with appropriate readings.

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 2040 New Testament Greek I (4) AS REL

GRE 2041 New Testament Greek II (4) AS REL

GRE 2200 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
CP: GRK 1120L. An intensive study of basic skills; pronunciation, listening comprehension, speaking and some composition.

GRK 1120L Beginning Modern Greek I Laboratory (1) AS WLE
CP: 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; CP: GRK 1121L. A continuation of GRK 1120. An intensive study of basic skills; pronunciation, listening comprehension, speaking and some composition.

GRK 1121L Modern Greek II Laboratory (1) AS WLE
CP: 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 2200 Modern Greek III (4) AS WLE
PR: GRK 1121 or the equivalent. For language students who intend to attain basic proficiency.

GRK 2201 Modern Greek IV (4) AS WLE
PR: GRK 2200 or its equivalent. Continuation of GRK 2200. Practice of writing, speaking and listening skills for language students who intend to attain basic proficiency.

GRK 4905 Directed Study (1-5) AS WLE
Departmental approval required. S/U only. Permits study options in Modern Greek not available in the regularly scheduled curriculum at departmental discretion.

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

GRW 5905 Directed Reading (1-4) AS WLE
Departmental approval required.

GRW 5934 Selected Topics (4) AS WLE
Available to majors and non-majors. Study of an author, movement or theme.

HAS 4150 Introduction to Public Health (3) PH CFH
A survey of policies and programs in public/community health with emphasis on specific needs and problems of Florida.

HBR 1120 Modern Hebrew I (4) AS WLE
CP: HBR 1120L. An intensive study of basic skills; pronunciation, listening comprehension, speaking and some composition. A laboratory designed to offer additional practice using various instructional technologies and media.

HBR 1121 Modern Hebrew II (4) AS WLE
PR: HBR 1120 or its equivalent; CP: HBR 1121L. A continuation of HBR 1120. An intensive study of basic skills; pronunciation, listening comprehension, speaking and some composition. More sophisticated oral/aural skills are acquired. Basic reading skills are acquired.

HBR 1121L Modern Hebrew II Laboratory (1) AS WLE
CP: HBR 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.

HBR 2200 Modern Hebrew III (4) AS WLE
PR: HBR 1121 or the equivalent. For language students who intend to attain basic proficiency.

HEB 4905 Directed Study (1-5) AS WLE
Departmental approval required. S/U only. Permits study options in Modern Hebrew not available in the regularly scheduled curriculum at departmental discretion.

HEB 1120 Basic Hebrew I (4) AS REL
Designed to give students a working knowledge of Classical (Biblical) Hebrew and to introduce them to the Biblical literature in the original language.

HEB 1121 Basic Hebrew II (4) AS REL
Designed to give students a working knowledge of Classical (Biblical) Hebrew and to introduce them to the Biblical literature in the original language.

HIS 2931 Special Topics (2-4) AS HTY
This course emphasizes a selected historical problem or issue. A variety of instructional approaches will be taken, and topics may vary.

HIS 3041 History of Political Thought (4-4) 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 3088 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.

HIS 4104 Theory of History (4) AS HTY
Required of all history majors. Recommended to be taken during the senior year. An analysis of the foundations of historical knowledge and historical methodologies. Includes a survey of historical thinking and writing from ancient times to the present.

HIS 4900 Directed Reading (1-4) AS HTY
PR: CI. Arrangement with instructor prior to registration. Readings in special topics.

HIS 4920 Colloquium in History (2-4) AS HTY
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 4936 Pro-Seminar in History 6A MW (4) AS HTY
PR: CI. Required of all history majors. Advanced topics in the various fields of history. Emphasis on discussion of assigned readings and on research and writing of a major paper.
HUM 2243 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 art worlds and contacts among art worlds.

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).

HUM 3251 Studies in Culture: The Twentieth Century (HP) (3) AS HUM
Analyses of selected works of twentieth century art, including films, paintings, murals, and literature, and the impact of major political, social, and economic events, such as war, depression, totalitarianism, and technological change.

HUM 3271 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 Ancient times through the Middle Ages, emphasizing Europe and India.

HUM 3273 Eastern and Western Culture Since 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 present, emphasizing Europe, the United States, and India.

HUM 3930 Selected Topics in Humanities (1-4) AS HUM
Courses offered under this number will always be interdisciplinary, treating more than one art media and relating them historically or in some other way. The interdisciplinary emphasis on literature and the arts, placing them in some larger context of culture or ideas, distinguished HUM courses from related courses offered in other departments of the university. Topics will vary; course may be repeated for credit with change of content.

HUM 4402 Humanities in India (4) AS HUM
PR: Sophomore standing or CI. Examples from the arts and letters of India and the relationship of these arts to the Hindu and Buddhist philosophy-religions.

HUM 4404 Humanities in China (4) AS HUM
PR: Sophomore standing or CI. Examples from the arts and letters of China; their relationship to Taoism, Confucianism and other Chinese philosophies; Western influences on twentieth century Chinese arts and letters.

HUM 4405 Humanities in Japan (4) AS HUM
PR: Sophomore standing or CI. Examples from the arts and letters of Japan, their relationship to Zen Buddhism and other Japanese philosophy-religions; Western influences on twentieth century Japanese arts and letters.

HUM 4433 Ancient Greek Culture (4) AS HUM
PR: Sophomore standing or CI. A study of the poetry, drama, philosophy, historical writing, painting, sculpture and architecture of ancient Greece, including such authors as Homer, Sophocles, and Plato, and monuments such as the Parthenon.

HUM 4435 Early Medieval Culture (4) AS HUM
PR: Sophomore standing or CI. A study of the culture of Europe and the Mediterranean world from the 4th to 11th centuries through the readings of early Medieval historians, poets, and theologians, as well as the study of illuminated manuscripts, mosaics, painting and architecture.

HUM 4437 Italian Renaissance Culture (4) AS HUM
PR: Sophomore standing or CI. A study of the painting, literature, music, sculpture and architecture of early modern Italy (1300-1600), emphasizing humanism, the revival of antiquity, the tension between sacred and secular, and artists such as Michelangelo, Titian, Raphael.

HUM 4438 Northern Renaissance Culture (4) AS HUM
PR: Sophomore standing or CI. A study of the Northern Renaissance, 1400-1550, as exemplified in Germany, France, the Netherlands, England, and Spain. The course includes painting, architecture, literature and music, with special study of Durer, Van Eyck, El Greco, and Rubens.

HUM 4440 Arts and Letters in the 17th and 18th Centuries (4) AS HUM
PR: Sophomore standing or CI. A study of the visual arts, literature and music from the mysticism and ornament of the Baroque to the rationalism and classicism of the Enlightenment, including such artists, authors and composers as Rembrandt, Gentilesechi, Voltaire, Bach, and Mozart.

HUM 4442 Arts and Letters of the Romantic Period (4) AS HUM
PR: Sophomore standing or CI. Continental masterworks of fiction, painting, and music in the context of European cultural history from the French Revolution to the Revolutions of 1848.

HUM 4444 Nineteenth Century European Arts and Letters (4) AS HUM
PR: Sophomore standing or CI. A study of continental literary, musical, and artistic masterworks from the Revolutions of 1848 until the outbreak of World War I.

HUM 4445 Twentieth Century Arts and Letters I (4) AS HUM
PR: Sophomore standing or CI. Analysis of selected works of twentieth century art. The course will focus on a particular phase in the development of modernism, a set of themes, or certain stylistic aspects of various arts of the twentieth century.

HUM 4446 Twentieth Century Arts and Letters II (4) AS HUM
PR: Sophomore standing or CI. Analysis of selected works of twentieth century art. The course will focus on a particular phase in the development of modernism, a set of themes, or certain stylistic aspects of various arts of the twentieth century.
HUM 4452 Nineteenth Century American Culture (4) AS HUM
PR: Sophomore standing or CI. Study of selected works of art, tracing the course of American expansionism in civilization, and the interaction between the arts and the sciences in American ways of life and work, 1790-1890.

HUM 4455 Twentieth Century American Culture (4) AS HUM
PR: Sophomore standing or CI. Study of selected works, tracing the course of expansion in the production and enjoyment of works of art, and interaction between the ideas and pragmatic concerns for development of the arts in the 20th century.

HUM 4462 Ancient Latin American Culture (4) AS HUM
PR: Sophomore standing or CI. Analysis of selected Latin American works of art in their cultural context, with emphasis on major art forms selected from the Pre-Columbian period.

HUM 4464 Latin American Culture Since 1492 (4) AS HUM
PR: Sophomore standing or CI. Analysis of selected Latin American works of art in their cultural context, with emphasis on major art forms selected from the colonial through contemporary periods.

HUM 4905 Directed Study (1-4) AS HUM
PR: CI. Specialized individual study determined by the student's interests and needs.

HUM 4909 BIS Humanities, Independent Study (15) AS BIS S/U only.

HUM 4930 Selected Topics in Humanities (1-4) AS HUM
PR: Sophomore standing or CI. This course will deal with a recurrent theme 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 4931 Seminar in Humanities 6A (4) AS HUM
PR: Humanities major or CI; Senior standing. Discussion of interdisciplinary humanities. Includes essay.

HUM 4936 Major Issues in the Humanities MW (3) AS HUM
PR: Admission to the Honors Program. An in-depth examination of values and their relationship to choices in contemporary society using historical perspective and inquiry into moral/ethical dilemmas. Available to majors or non-majors.

HUM 4939 BIS Humanities Seminar (15) AS BIS
PR: BIS HUM 4909 or CI. S/U only.

HUM 4940 Internship in Humanities (1-4) AS HUM
A structured, out-of-class learning experience providing firsthand, practical training in Humanities-related professional careers in the community.

HUM 4941 Study on Location (1-4) AS HUM
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 lectures.

HUM 5101 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 to senescence, interpretation of current nutrition information, and application of nutrition knowledge in the establishment of good eating habits.

IDH 2009 Discovery: People, Processes and Problems (3) US HON
PR: Admission to Honors Program. 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) US HON
PR: Admission into the Honors Program. An appreciation of the problems of how human understanding proceeds through operations such as perception, classification, and inference, among others, as well as the open philosophical questions behind these operations.

IDH 3100 Arts/Humanities Honors (1-3) US HON
PR: IDH 2010. An introduction to western arts and letters from the perspectives of periods and periods of decisive cultural changes (humanism, modernism, and postmodernism), 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) US 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.

IDH 3400 Social and Behavioral Sciences Honors (3) US HON

IDH 3600 Seminar in Applied Ethics (3) US 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) AS 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) US 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 4950 Honors Program Project (3) US HON
Enrollment is limited to St. Petersburg Honors Program students who have completed at least one Honors Program Seminar. Senior Honors Program project consisting of an original creative work in literary, visual or performing arts, or in a community-oriented endeavor of substance and originality. Either a project or an Honors Thesis will fulfill the requirements for graduation as St. Petersburg Campus Honors Program students.

IDH 4970 Honors Thesis (3) US HON
PR: Senior Honors Standing. The development and public presentation of a senior thesis under the direction of a mentor. Course is taken for 2 semesters.

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 inquiry into moral/ethical dilemmas. Available to majors or non-majors.

IDS 3662 Arts Connections FA (3) FA FAI
This is an interdisciplinary course to the arts disciplines of music, dance, theatre, and art. 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 role the arts play in shaping their perceptions of the world as well as reflecting the underlying values and paradigms that form our culture(s).

IDS 3663 Critical Issues Affecting the Arts MW (3) FA FAI
This is an interdisciplinary course to the arts disciplines of music, dance, theatre, and art. 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 role the arts play in shaping their perceptions of the world as well as reflecting the underlying values and paradigms that form our culture(s).

IDS 3900 Honors Program Reading Seminar (1) US HON

IDS 3949 Cooperative Education (0) US COE
60 hours of academic credit, acceptance 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 research experience.

IDS 4934 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 4955 Internat 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 4990 BiS Inter-Disciplinary Studies (30) AS BIS
PR: ISS 4909, ISS 4939, ISC 4909, ISC 4939, HUM 4909, HUM 4939. S/U only.

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 4004 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 2010 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 3018 World Ideologies MW (3) AS INT**
A course which details and explores the ideologies of today's independent countries; analyzing them in their political, social, cultural and historical context.

**INR 3033 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 constructive and destructive modes of self and social identification.

**INR 3038 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 3061 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 3084 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, and issues of security, power, and political values.

Bodyheal <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 4130 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 outbreak of conflict.

**INR 4250 Political Economy of the Southern Nations SS AF (3) AS INT**
A multidisciplinary study of the efforts of the nations in the South (Africa, Asia, Latin America and the Middle East) to improve their status through political and economic development.

**INR 4254 Africa in World Affairs MW (3) AS POL**
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 4334 Defense Policy (3) AS POL**
Analytic institutional factors contributing to formulation of defense policy and the impact of such policy on international relations.

**INR 4403 International Law SS (3) AS POL**
Examines essential components of the international legal system; recognition; succession; sea, air and space law, treaties, diplomacy, 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**
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 interdisciplinary research in areas of specific interest.

Bodyheal <INR 4910 Directed Research (1-3) AS INT>
PR: CI.
A supervised program of interdisciplinary research in areas of specific interest.

**INR 4931 Selected Topics (1-4) AS INT**
Interdisciplinary study courses 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 topic/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. S/U only. 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 5086 Issues in International Relations (3) AS POL**
SR/CIS. Explores specific issues and provides the student with an opportunity for in-depth study of historical and contemporary problems in international politics.

**ISC 1004 Integrated Natural Sciences I: Science that Matters NS (3) AS CHM**
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.

**ISC 1005 Integrated Natural Sciences II: Science that Matters NS (3) AS CHM**
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.

**ISC 3099 BIS Natural Sciences, Independent Study (15) AS BIS**
S/U only.

**ISC 4939 BIS Natural Sciences, Seminar (15) AS BIS**
PR: BIS ISC 4909 or CI.

**ISM 3101 Information Systems in Organizations (3) BA QMB**
PR: CGS 2100 or equivalent; ACG 2071 or equivalent. May not be counted toward major requirements in MIS. 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 3111 CP: ISM 3232, with a grade of "C" or better. 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**
PR: ISM 3011 with a grade of "C" or better. Presentation of business application development using a modern programming language. Topics include data structures, input, output, 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 2230 or MAC 2233. 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 3232, ISM 3113, ISM 4212, with a grade of "C" or better. 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 4212 Database Design and Administration (3) BA QMB**
PR: ISM 3113, ISM 3232. Principles of database design/management for mainframe, micro, and client/server environments; including data modeling, physical design, logical representation and back-up and recovery management.

**ISM 4213 Advanced Database Administration (3) BA QMB**
PR: ISM 3113, ISM 4212, with a grade of "C" or better. 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.
ISA 4220 Business Data Communications (3) BA QMB  
PR: ISA 3113 with a grade of "C" or better. Fundamentals of data communication, including network architectures, communication protocols, transmission standards and media access control methods.

ISA 4233 Information System Interface Design (3) BA QMB  
PR: ISA 3232 with a grade of "C" or better. The fundamental concepts of human perception and cognition are studied in order to develop effective human-computer interfaces. Various types of interfaces and evaluated developments will develop human-computer interfaces via state-of-the-art development languages and systems.

ISA 4234 Object-Oriented Design and Development (3) BA QMB  
PR: ISA 3232 with a grade of "C" or better. 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 system designs based on these objects. The designs will be implemented by the use of the C++ or other OO programming languages.

ISA 4240 Distributed Operating Systems (3) BA QMB  
PR: ISA 3232 with a grade of "C" or better. 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.

ISA 4290 Senior Seminar in Information Systems (3) BA QMB  
PR: ISA 3113, ISA 4121, with a grade of "C" or better. A seminar covering advanced topics in systems management, analysis and design. Applications of these procedures to actual or hypothetical cases.

ISA 4300 Managing Information Resources (3) BA QMB  
PR: ISA 3113, ISA 4121, ISA 4220. Current issues in information systems management are investigated from an organizational and policy perspective. The course will emphasize current issues and standards for managing distributed computer resources.

ISA 4400 Decision Support Systems Applications-Computer Assisted Decision Making (3) BA QMB  
PR: FIN 3403, QMB 3200, and ISA 3113, with a grade of "C" or better, MIS major or CI. Methods and techniques for developing systems to support decision making in business organizations.

ISA 4480 Electronic Commerce Systems (3) BA QMB  
PR: ISA 3011 with a grade of "C" or better, MIS major or CI. 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.

ISA 4905 Independent Study (1-6) BA QMB  
S/U only. Independent study as directed by designated faculty.

ISA 4930 Selected Topics in MIS (1-3) BA QMB  
Selected topics in MIS.

ISA 4950 Independent Research (1-6) BA QMB  
PR: ISA 3113. Independent study contract with an instructor and department chairperson required. The research project will be mutually determined by the student and instructor.

ISS 1101 Knowledge and Society SS (3) AS ISS  
CO: ISS 1103. 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  
CO: ISS 1103. Course introduces students to issues concerning the relationship between the self (or itself) and society. Among the topics that may be addressed are the idea of human nature, how human nature is shaped by social and cultural factors; the moral obligations between individuals and society; and how our understanding of one's self is shaped by gender and culture.

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 our awareness of it; to what extent is nature transformable; should "nature" dictate the shape of social institutions; how does technology affect our society and environment.

ISS 3010 Introduction to the Social Sciences (3) AS ISS  
Integrates the range of social science fields into 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.

ISS 4151 Native American Women (3) AS ISS  
An interdisciplinary examination of Native American Women, past and present. Topics include history, education, politics, family, etc.

ISS 4162 The City and Urbanization (3) AS ISS  
An interdisciplinary perspective will be used to analyze the emergence of the city, urban revolution and metropolis. Urban planning and governance and human ecology perspective will be examined in looking at how urban areas deal with social and physical problem.

ISS 4900 Directed Readings (1-3) AS ISS  
PR: CI. A supervised program of intensive reading of interdisciplinary materials in areas of specific interest.

ISS 4909 BIS Social Sciences, Independent Study (15) AS BIS  
S/U only.

ISS 4910 Directed Research (1-3) AS ISS  
PR: CI. A supervised program of interdisciplinary research in areas of specific interest.

ISS 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 4939 BIS Social Sciences, Seminar (15) AS BIS  
PR: BIS ISS 4909 or CI. S/U only.

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  
CP: 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  
CP: ITA 1120. A laboratory designed to offer additional practice using various instructional technologies and media.

ITA 1121 Beginning Italian II (4) AS WLE  
CP: 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 (1) AS WLE  
CP: 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 Intermediate Italian I (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 2240 Italian Conversation I (4) AS WLE  
To develop fluency and correctness in spoken Italian. Intensive study for conversational skill based particularly upon the current Italian idiom. Syntax is intensified and the vocabulary and idiomatic expressions expanded.

ITA 2241 Italian Conversation II (4) AS WLE  
To assist students who have already made a start in speaking Italian, who have not had the advantages of travel or who have non-Italian speaking parents, to improve their skill in speaking Italian. Current events, literary discussions; free conversation; prepared speeches. Differences of media, syntactical signal.

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.

ITW 4101 Survey of Italian Literature I (4) AS WLE  
A survey of Italian literature from the earliest monuments through the classicism of the 18th century.

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.

ITW 4905 Directed Study (1-3) AS WLE  
Departmental approval required. Selected topics in Italian literature.

JOU 2100 Beginning Reporting (3) AS COM  
PR: MMC 2100 and MMC 3602. Basic instruction in news judgment, differences of media, syntactical signal.

JOU 2110 Beginning Reporting (3) AS COM  
PR: MMC 2100 and MMC 3602. 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: POS 2041, JOU 2100, or RTV 3304 (RTV majors only), JOU 2200 (may be taken concurrently), and PHI 1103. Reporting and writing for more complex and specialized story. Techniques of investigative and analytical reporting, including ethical and legal considerations.
JPN 1120 Modern Japanese III (3) AS WLE
PR: JPN 1121 or equivalent. Continuing study to attain basic proficiency in Japanese.

JPN 2200 Modern Japanese IV (3) AS WLE
PR: JPN 2200 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 Language Arts in Childhood Education (3) ED EDE
PR: Admission to the College of Education. Implementing a coordinated and integrated language arts curriculum and guiding the development language experiences of children in elementary school. Explores the content, organization, and instruction of oral and written expression in childhood education.

LAE 4323 Methods of Teaching English: Middle School (3) ED EDE
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, listening, viewing, and critical thinking activities into a literature-based program for middle school students.

LAE 4414 Literature in Childhood Education 6A LW (3) ED EDE
Jr/Sr. Standing. The selection, evaluation and use of fiction, nonfiction and poetry for instructional, informational, and recreational purposes in Childhood Education.

LAE 4416 Teaching Literature 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 EDE
PR: English Education majors or CI. Recommended to be taken with LAE 4323 two semesters prior to internship. A 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 4530 Methods of Teaching English: Practicum (3) ED EDE
PR: Senior standing and CI. Must be taken one semester prior to internship. Recommended concurrently with LAE 4530. Whole language methods of integrating reading, writing, speaking, listening, viewing, and critical thinking activities into a literature-based program for high school students.

LAE 4536 Senior Seminar in English Education (2) ED EDE
PR: LAE 4464. Must be taken one semester prior to internship concurrently with LAE 4530. Whole language methods of integrating reading, writing, speaking, listening, viewing, and critical thinking activities into a literature-based program for high school students.

LAE 4540 Internship: English Education (1-12) ED EDE
S/U Only. 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 5932 Selected Topics in the Teaching of English (3) ED EDE
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.
LAI 2734 Latin American History in Film 6A HP AF (3) AS HTY
Introduction to the study of films and reading, 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.

LAI 3130 Colonial Latin America 4 AS HTY
A study of the Spanish and Portuguese Colonial empires in the New World from 1492-1830.

LAI 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.

LAI 3430 History of Mexico (4) AS HTY
Mexican history from pre-Colombian cultures to the twentieth century. Emphasis falls on the colonial political economy, social development, the wars of independence, development of the 19th century Mexican state and the Mexican revolution.

LAI 3470 History of the Caribbean (4) AS HTY
A thematic study of the circum-Caribbean from pre-Colombian cultures to the twentieth century, emphasizing the development of the Caribbean political economy with emphasis on monoculture, plantation society, and colonial/neocolonial relationships.

LAI 3480 History of Cuba (4) AS HTY
Cuban history from pre-Colombian 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
An introductory course in Latin American geography, history, politics, society, and culture. The course will examine the diversity of Latin America in the context of historical development and continue to explore the social, political, economic, and cultural processes that have shaped the region.

LAS 3116 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.

LAT 1120 Beginning Latin I (4) AS WLE
An introductory course in Latin grammar with appropriate readings.

LAT 1121 Beginning Latin II (4) AS WLE
Pr: LAT 1120 or equivalent. An introductory course in Latin grammar with appropriate readings.

LAT 2200 Intermediate Latin (4) AS WLE
Pr: LAT 1121 or equivalent. Readings in Latin at an intermediate level.

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
Will not be counted toward the English major. 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 Cr. 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 description will be developed and compared.

LIN 4575 Language Types of the World (3) AS WLE
A survey 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
Pr: CI. Readings in special topics.

LIN 4930 Selected Topics (1-3) AS WLE
Pr: CI. Course content depends upon students' 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 of English language acquisition by non-native speakers.

LIS 2001 Library and Information Skills (3) AS LIS
An introduction to various types of information sources (print and electronic) and search techniques. The course is designed to instruct students how to locate, evaluate, and effectively use information.

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 3361 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 such as emerging technologies, administration and service, and current professional issues.

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. Interpreting needs for instructional materials appropriate for given behavioral objectives.

LIS 5333 TV in Schools and Libraries (3) AS LIS
Small format video tape recordings and the utilization of open and closed broadcasts in schools and libraries.

LIS 5404 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 5937 Selected Topics in Library Studies (1-4) AS LIS
Covers a variety of topics in such areas as collection development, reference services, technical services, and administration.

LIT 2000 Introduction to Literature 6A HP (3) AS ENG
Introduction to 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 a 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 literature and theatre; approached from an historical perspective though not restricted to any historical period. Will not be counted toward the English major.
LIT 3101 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, Plato, 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 Moliere, Racine, Voltaire, Dostoevsky, Chekhov, Ibsen, Kafka, Gide, Sartre, and others.

LIT 3103 Great Literature of the World 6A MW LW (3) AS ENG
PR: Junior/Senior Standing. 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.

LIT 3144 Modern European Novel 6A HP (3) AS ENG
Examinations major literary works of the 20th Century written in English and explores ways authors have expressed the age, its great issues and conflicts, in order to gain an historical perspective that will help relate the present to the recent past. Designed for non-majors, but majors may take it by special arrangement.

LIT 3301 Cultural Studies and the Popular Arts 6A MW LW (3) AS ENG
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.

LIT 3375 The Bible As Literature 6A MW LW (3) AS ENG
May be counted once toward the English major. However, can be taken twice. Fall semester is Old Testament and Spring semester is New Testament. Either can count toward the major. Major emphasis on the major literary personalities of the Old and New Testament, 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.

LIT 3383 The Image of Women in Literature 6A MW LW (3) AS ENG
A study that seeks to trace the prongs of contemporary views about women, to analyze major Eastern/Western literary portrayals of women, to examine ideas about women's roles, and to compare/contrast cultural/racial images of women.

LIT 3410 Religious and Existential Themes 6A (3) AS ENG
A study of the religious and existential traditions and interrelationships in the arts and sciences, including religious and secular, Eastern and Western, traditions. Presents 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.

LIT 3700 Survey of Poetry (3) AS ENG
A chronological sampling of the major poems written in English from the Middle Ages through the present. Recommended as the first course in the poetry option.

LIT 4386 British and American Literature by Women 6A MW LW (3) AS ENG
Survey 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. Open to majors and non-majors. Introductory writing intensive. Prerequisite: English or American literature course.

LIT 4504 Literature as Cultural Study 6A MW (3) AS ENG
The study of literary texts as cultural artifacts and the problematic nature of that. Literary texts as historical, social, political, psychological, philosophical, religious, etc. documents (or as any one of these). Topics and works vary.

LIT 4930 Selected Topics in English Studies 6A (3) AS ENG
The content of the course will be governed by student demand and instructor interest. It will be devoted to the study of a recurring literary theme or the work of a small group of writers. Special courses in writing may also be offered under this title.

LNW 4520 Vergil 4A AS WLE
PR: LAT 1121 or equivalent. Readings in Vergil's Aeneid. Study of the tradition, techniques, and artistry of Roman epic poetry. Available to majors and non-majors.

LNW 4531 Livy 4A AS WLE
PR: Basic knowledge of Latin. Readings in the ideas and artistry of this Roman historian.

LNW 4500 Cicero and Roman Philosophy 4A AS WLE
PR: Basic knowledge of Latin. Readings in the philosophic writings of Cicero, together with a consideration of eclectic thought.

LNW 4501 Seneca and Roman Philosophy 4A AS WLE

LNW 4634 Catullus (4) AS WLE
PR: Basic knowledge of Latin. Readings in the epistles of Cicero.

LNW 4654 Horace (4) AS WLE
PR: Basic knowledge of Latin. Readings in the Odes and Epodes of Horace; study of the ode's tradition.

LNW 4670 Ovid (4) AS WLE

LNW 4900 Directed Reading (1-4) AS WLE
Departmental approval required.

LNW 4930 Selected Topics (4) AS WLE
Study of an author, movement, or theme. PR: Departmental approval. S/U.

LNW 5900 Directed Reading (1-4) AS WLE
Departmental approval required. S/U.

LNW 5934 Selected Topics (4) AS WLE
Study of an author, movement, or theme.

MAA 2211 Intermediate Analysis I 6A (4) AS MTH
PR: MAC 2311 and MAS 3105. Sequences, series, metric spaces, continuity, differentiation.

MAA 2212 Intermediate Analysis II 6A (3) AS MTH
PR: MAA 2211: Riemann-Stieltjes integration, uniform convergence, and related topics.

MAA 4402 Complex Variables 6A (3) AS MTH
PR: For students who have taken MAC 2303 or CI. No credit for students with credit in MAA 5404. Complex numbers, Cauchy-Riemann equations, analytic and conformal mappings, power series, Cauchy Theorem, Cauchy Integral Formula, residue theory.

MAA 5306 Real Analysis I (3) AS MTH
PR: MAA 2212. Riemann-Stieltjes integrals, uniform convergence, Fourier series, Lebesgue measure and integration on R.

MAA 5307 Real Analysis II (3) AS MTH

MAA 5405 Applied Complex Analysis (3) AS MTH
PR: CI. Complex numbers, analytic and harmonic functions, Series, Conformal integrals, residue theory. Conformal mappings. (A survey course emphasizing techniques and applications.)

MAC 1105 College Algebra 6A QM (3) AS MTH
PR: C (2.0) or better in MAT 1033, or 490 or better SAT Math score, or 21 or better ACT Math score, or 90 or better Elementary Algebra CPT score, or 40 or better College-Level Math CPT score. No credit for students with prior credit for MAC 1140 or MAC 1174. Concepts of the real number system, functions, graphs, and complex numbers. Analytic skills for solving, quadratic, polynomial, exponential, and logarithmic equations. Mathematical modeling of real life applications. College Algebra may be taken either for General Education credit or as preparation for a pre-calculus course.

MAC 1114 Precalculus 6A (2) AS MTH
PR: C (2.0) or better in MAC 1105, or 550 or better SAT Math score, or 24 or better ACT Math score, or 60 or better College-Level Math CPT score. No credit for students with credit in MAC 1147. Angles, trigonometric functions, properties and graphs of trigonometric functions, right triangles, laws of sines and cosines, polar coordinates, etc.
MAC 1140 Precalculus Algebra  6A QM (3) AS MTH
PR: C (2.0) or better in MAC 1105, or 550 or better SAT Math score, or 24 or better ACT Math score, or 60 or better College-Level Math CPT score. No credit for students with credit in MAC 1147. May be taken concurrently with MAC 1114. Review of functions and graphs. Analytic geometry including properties of graphs of equations, systems of equations including matrix algebra and determinants, sequences and series including Binomial Theorem.

MAC 1147 Precalculus Algebra and Trigonometry  6A QM (4) AS MTH
PR: C (2.0) or better in MAC 1105, or 550 or better SAT Math score, or 24 or better ACT Math score, or 60 or better College-Level Math CPT score. No credit for students with credit for either MAC 1140 or 1147. An accelerated version of MAC 1140 and MAC 1114; this course is best for students who have already seen some trigonometry. See the descriptions of MAC 1140 and MAC 1114.

MAC 2230 Business Calculus  6A QM (4) AS MTH
PR: C (2.0) or better in MAC 1105, or C (2.0) or better in MAC 1140, or C (2.0) or better in MAC 1147, or 590 or better SAT Math score, or 26 or better ACT Math score, or 78 or better College-Level Math CPT score. No credit for students with credit for either MAC 2233, MAC 2281 or MAC 2311. Linear equations and functions, mathematics of finance, differentiation and integration of algebraic, exponential and logarithmic functions with applications to business, finance, and economics.

MAC 2233 Life Sciences Calculus I  6A QM (4) AS MTH
PR: C (2.0) or better in MAC 1114 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 students with credit in MAC 2281 or MAC 2311. Differentiation and integration of algebraic functions with applications, exponential and logarithmic functions. MAC 2233-MAC 2234 are primarily for students from Biological Sciences, Social Sciences and Business.

MAC 2233 Life Sciences Calculus II  6A QM (4) AS MTH
PR: C (2.0) or better in MAC 2233. No credit for Mathematics majors or students with credit in MAC 2282 or MAC 2312. Techniques of integration, differential equations, functions of several variables, series and Taylor polynomials.

MAC 2281 Engineering Calculus I  6A QM (4) AS MTH
PR: C (2.0) or better in MAC 1114 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 students with credit in MAC 2281 or MAC 2311. Differentiation, limits, differentials, extremes, indefinite integral. No credit for mathematics majors or for students with credit in MAC 2230 or MAC 2233 or MAC 2311.

MAC 2282 Engineering Calculus II  6A QM (4) AS MTH
PR: C (2.0) or better in MAC 2281. No credit for students with credit in MAC 2230 or MAC 2234 or MAC 2282. Definite integral, trigonometric functions, logarithmic, exponential, series, applications.

MAC 2283 Engineering Calculus III  6A QM (4) AS MTH
PR: C (2.0) or better in MAC 2282 or CC. No credit for students with credit in MAC 2313. Techniques of integration, numerical methods, analytic geometry, polar coordinates, Vector algebra, applications.

MAC 3111 Calculus I  6A QM (4) AS MTH
PR: C (2.0) or better in MAC 1114 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 students with credit in MAC 2281 or MAC 2311. Differentiation, limits, differentials, extremes, indefinite integral. No credit for students with credit in MAC 2230 or MAC 2233 or MAC 2311.

MAC 3122 Calculus II  6A QM (4) AS MTH
PR: C (2.0) or better in MAC 3111 or CC. No credit for students with credit in MAC 2234 or MAC 2282. Antiderivatives, the definite integral, applications, series, log, exponential and trig functions.

MAC 3123 Calculus III  6A QM (4) AS MTH
PR: C (2.0) or better in MAC 3122 or CC. No credit for students with credit in MAC 2234 or MAC 2282. Antiderivatives, the definite integral, applications, series, log, exponential and trig functions.

MAC 3100 Discrete Mathematics  6A (3) AS MTH
PR: MAC 2281 or MAC 2311. No credit for Mathematics majors. An introduction to some of the aspects of discrete mathematics that are fundamental to digital computing. Topics include sets, numbers, algorithms, Boolean algebra, computer arithmetic, elementary combinatorics and an introduction to graph theory.

MAD 3001 Number Theory  6A QM (3) AS MTH
PR: MAP 2302 and MAS 3105. Interpolation and quadrature, finite differences, numerical solution of algebraic and transcendental equations, numerical solution of differential equations, computer techniques.

MAD 4504 Theory of Computation  6A (3) AS MTH

MAD 5101 LISP: Programming With Algebraic Applications  (3) AS MTH
PR: MGF 5306 or MAD 6510 or MAS 5311 or CI. Programming in LISP, functional languages, foundations of Lambda Calculus and algebraic applications (theory of computing and game playing).

MAD 5305 Graph Theory  3A (3) AS MTH
PR: MAS 3105 or CI. Brief introduction to classical graph theory (4-color theorem, etc.), directed graphs, connected digraphs, connotations, incidence matrices, Polya’s Theorem networks.

MAE 4310 Teaching Elementary School Mathematics I  3D EDE
PR: Admission to College of Education and two college level mathematics courses. Methods for teaching number ideas, computations, skills, and mathematical reasoning.

MAE 4320 Teaching Mathematics in the Middle Grades  3D EDO
PR: 18 semester hours of mathematics or DPR. Admission to Mathematics Education Program. Techniques and materials of instruction in middle grades mathematics topics. Students are expected to observe 15 hours in middle schools.

MAE 4326 Teaching Elementary School Mathematics II  2D EDE
PR: MAE 4310. Methods for teaching informal geometry, measurement, probability and statistics.

MAE 4330 Teaching Senior High School Mathematics  3D EDO
PR: MAE 4320 and admission to teacher education program in mathematics. Techniques and materials of instruction in mathematics. Students are expected to observe 20 hours in high schools.

MAE 4551 Reading the Language of Mathematics  (2) EDO
Consideration of issues related to the communication of mathematics, including reading and writing mathematics and solving verbal problems.

MAE 4652 Technology for Teaching Secondary School Mathematics I  3D EDO
PR: Admission to Mathematics Education Program or DPR. This course prepares secondary mathematics education majors to write computer programs in both QBASIC and Logo 4.0 that are appropriate for secondary school mathematics classrooms. A variety of uses of computers in mathematics instruction will also be covered.

MAE 4653 Technology for Teaching Secondary School Mathematics II  3D EDO
PR: MAE 4320 and MAE 4652 This course prepares secondary mathematics education majors to be proficient with handheld technologies such as graphing calculators, symbolic manipulators, calculator based laboratory systems and hand held geometric drawing tools.

MAE 4909 Directed Study: Mathematics Education  (1-3) EDO
PR: Senior Standing. To extend competency in teaching field.

MAE 4936 Senior Seminar in Mathematics Education  (2) EDO

MAE 4940 Internship: Mathematics Education  (1-12) EDO
CP: MAE 4936. 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.

MAE 5305 Abstract Algebra for Teachers  3A AS MTH
PR: MAS 3105 and MAD 4301 and Bachelor's degree or CI. No credit for Mathematics majors. Groups, fields, vector spaces as they relate to high school algebra and geometry.

MAD 5877 Mathematical Analysis For Teachers  3A (3) AS MTH
PR: MAC 2313 and Bachelor's degree or CC. No credit towards Mathematics major. Limits, continuity, derivatives, differentials.

MAN 3025 Principles of Management  3A BA MAN
PR: MAN 3025. The course covers research literature relevant to organizational functioning including behavioral effects of power.
and authority, formal organization, structural variation, leadership, motivation, and communication.

MAN 3301 Human Resource Management (3) BA MAN
To develop a broad exposure to new approaches, techniques, and future trends in the management of personnel. A study of the major functions in personnel including job design, recruitment, selection, performance evaluation, training, and wage and salary administration.

MAN 3401 Industrial Relations (q) BA MAN
Conceptualization of the administrative problems arising from unionization. Emphasis on the relationship between management and employee representatives in private and public employment.

MAN 4120 Managerial Behavioral Laboratory (3) BA MAN PR: MAN 3240 or equivalent. Development of direct understanding of personal, interpersonal, and intergroup factors present in organizational interaction. Stress is on a series of experiential exercises and written application of results within a laboratory setting.

MAN 4129 Theory and Practice of Management Skills (3) BA MAN
This course involves the transference of management theories into practice. It requires the active involvement of students in developing and practicing the skills needed to be a successful manager.

MAN 4280 Organizational Development and Change (3) BA MAN 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.

MAN 4282 Organizational Assessment (3) BA MAN PR: MAN 3240. 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.

MAN 4402 Employment Laws (3) BA MAN 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.

MAN 4430 Seminar in Negotiations and Administration of Labor Agreements (3) BA MAN Case studies in contract negotiation, administration, grievance settlement, and arbitration. Assumes familiarity with industrial relations systems.

MAN 4504 Operations Management: A Systems Approach (3) BA QMB 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.

MAN 4507 Operation Production Systems (3) BA QMB PR: MAN 4504 or equivalent. 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.

MAN 4600 International Management (3) BA MAN PR: MIN 3025, Senior Standing or CI. A study of the role and importance of the international/multinational firms in the global environment. Impact of the political, regulatory, and economic dimensions will be considered from the manager's perspective.

MAN 4802 Entrepreneurship and Small Business Management (3) BA MAN 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.

MAN 4804 Small Business Management Counseling (3) BA MAN 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.

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

MAN 4930 Selected Topics in Management (1-3) BA MAN Topics to be selected by instructor and department chairperson for pertinent management issues.

MAN 4931 Independent Research (1-4) BA MAN PR: CI. Individual student contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor.

MAP 2302 Differential Equations (3) AS MTH PR: MAC 2283 or MAC 2313. First order linear and nonlinear differential equations, higher order linear equations, applications.

MAP 3317 Ordinary Differential Equations II (3) AS MTH 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.

MAP 5346 Applied Partial Differential Equations (3) AS MTH PR: MAP 5407 or CI. Separation of variables, the heat equation, wave equation, Laplace's equation, classification, Green's functions with emphasis on applications.

PR: CI. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor.

MAR 2393 Selected Topics in Marketing (1-4) BA MKT Not available for credit to upper-level students who have been admitted to the College of Business. Topics to be selected by department chairman.

MAR 3023 Basic Marketing (3) BA MKT PR: ACG 2021, ECO 2013, ECO 2023, or CI. Survey of the marketing of goods and services within the economy. Emphasis is paid to the impact of marketing on other functional areas of business as well as society.

MAR 3400 Professional Selling (3) BA MKT 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. Sales careers are examined.

MAR 3613 Marketing Research (3) BA MKT PR: QMB 3200, MAR 3023. A study of research methods and techniques applicable to problem solving in marketing. Attention is also given to defining information needs, determining the value of information, interpreting and reporting information for use in marketing decision making.

MAR 3823 Marketing Management (3) BA MKT PR: MAR 3023. An applications oriented study of the marketing function at an intermediate level. Emphasis upon techniques for analysis and problem-solving. Builds upon the principles and concepts learned in MAR 3023, and provides a strong foundation for the remaining courses in the marketing curriculum.

MAR 4156 International Marketing (3) BA MKT PR: MAR 3023. A study of procedures and problems associated with establishing marketing operations in foreign countries. Includes the marketing tools, principles, and practices of solving the solution of these business problems as well as the effects of national differences on business practices and buyer behavior.

MAR 4213 Logistics and Physical Distribution Management (3) BA MKT PR: MAR 3023 or CI. A study of logistics in the marketing of goods and services. Includes a description and analysis of the logistics environment as well as components of the physical distribution system with emphasis on information flows and the application of quantitative techniques used in establishing and controlling customer service levels.

MAR 4231 Retailing Management (3) BA MKT PR: MAR 3023. A comprehensive study of the retailing structure, institutions, and environment. Includes pertinent management theories and practices in analyzing, organizing, planning and controlling retail operations, both large and small.

MAR 4333 Promotion Management (3) BA MKT PR: MAR 3023 or CI. A study of the role of promotion in the marketing program of the firm, including the promotional tools available to the marketing manager and the various types of decisions made in the promotional area. Development of decision-making process in development of a promotional program is emphasized.

MAR 4403 Sales Management (3) BA MKT PR: MAR 3023 or CI. A study of sales management and strategy as a subset of marketing management. Emphasis is placed on developing the problem-solving and decision-making skills required of the sales manager in the modern market-oriented company.

MAR 4453 Business to Business Marketing (3) BA MKT PR: MAR 3023. A study of the marketing of goods and services to the industrial and institutional sectors. Includes characteristics of the markets and channels of distribution, sales, marketing,
research and promotional practices, marketing policies and strategies.

MAT 4503 Buyer Behavior (3) BA MKT
PR: MAR 3023. A study of the basic concepts of buyer behavior, including pre- and post-purchase attitudes and behavior patterns, information processing relating to the functional areas of marketing, and the buyer's decision-making process. Managerial applications to marketing are emphasized.

MAT 4824 Marketing Management Problems (3) BA MKT
PR: Senior Standing, MAR 3823, MAR 3613, and two other 3000 or 4000 level marketing courses, or CI. The integration of marketing knowledge applied to decision roles in managing the total marketing effort of firms, and coordination with other major functional areas on specific problems.

MAT 4903 Independent Research (1-3) BA MKT
PR: CI. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor.

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

MAT 4933 Selected Topics In Marketing (1-3) BA MKT
Topics to be selected by instructor and department chairperson.

MAS 1100 Constructive Number Theory and Linear Algebra 6A (3) AS MTH
PR: Acceptance in USF-Hillsborough County Mathematics and Science Program. Computational and constructive aspects of number theory. Topics include: properties of integers, Diophantine Equations, congruence, quadratic residues polynomials over the integers, linear equations, matrices and determinants.

MAS 3105 Linear Algebra 6A (4) AS MTH
PR: MGF 3301. CO: MAC 2283 or MAC 2313. Linear systems, matrix algebra, vector spaces, linear independence, inner product spaces, Gram-Schmidt algorithm, linear transformations and matrix representations, determinants, eigenvalues, diagonalization, quadratic forms.

MAS 4105 Numerical Linear Algebra 6A (3) AS MTH
PR: MAS 3105. This course will consider efficient and stable numerical methods for dealing with matrix computations such as the solution of systems, calculation eigenvalues and vectors, least squares.

MAS 4156 Vector Calculus 6A (4) AS MTH
PR: MAS 3105 and MAC 2313 or MAC 2283. Implicit function and inverse function theorems, parameterized surfaces, submanifolds or Euclidean space, exterior calculus of differential forms, differentiation of vector fields, line and surface integrals, Stokes' Theorem, elementary continuous groups.

MAS 4214 Elementary Number Theory 6A (3) AS MTH
PR: MAC 2312. No credit towards Mathematics major. Divisibility, prime numbers. Fundamental Theorem of Arithmetic, Diophantine equations, the algebra of congruencies, number functions and other selected topics.

MAS 4215 Elementary Abstract Algebra 6A (3) AS MTH
PR: MAS 3105. An introduction to the basic algebraic structures: groups, rings, integral domains, and fields; homomorphisms and isomorphisms.

MAS 5107 Advanced Linear Algebra (3) AS MTH

MAS 5215 Number Theory 6A (3) AS MTH
PR: MAS 3105 and MAS 4301, or CI. Fundamental theorem of arithmetic, modular arithmetic, Chinese remainder theorem, Mersenne primes, perfect numbers, Euler-Fermat theorem, pseudoprimes, primitive roots, law of quadratic reciprocity, factorization and primality testing algorithms.

MAS 5311 Algebra I (3) AS MTH
PR: MAS 3005 and MAS 4301 or CI. Group theory: Sylow theorems, classification of groups of small order. Ring theory: ideals, quotient rings, polynomial rings, Euclidean domains, principal ideal domains and unique factorization.

MAS 5312 Algebra II (3) AS MTH
PR: MAS 5311 or CI. Continuation of MAS 5311. Finitely generated modules over a principal ideal domain, basic field theory, finite fields, Galois theory.

MAT 2930 Selected Topics in Mathematics 6A (1-4) AS MTH
PR: CI. The course content will depend on the interest of faculty members and student demand.

MAT 2936 Technology Seminar 6A (1) AS MTH
S/U only. A two-hour week technology seminar to acquaint students majoring in mathematics, physics, and other sciences with the computer tools necessary in scientific communication and documentation preparation.

MAT 4906 Independent Study 6A (1-4) AS MTH
PR: CI. S/U only. Specialized independent study determined by the student's needs and interests. The written contract required by the College of Arts and Sciences specifies the regulations governing independent study.

MAT 4930 Selected Topics in Mathematics 6A (1-4) AS MTH
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 5932 Selected Topics (1-4) AS MTH
PR: CI. Each course covers a single topic outside the usual curriculum.

MCB 3030C General Microbiology (4) AS BIO

MCB 4115 Determinative Bacteriology (5) AS BIO
PR: MCB 3030C. Survey of bacterial classification; detailed examinations of bacteria important to man in agriculture, in industry and as pathogens. Lec-lab.

MCB 4404 Microbial Physiology and Genetics (4) AS BIO
PR: MCB 3030C and CP/PR: BCH 3023. A study of the physiological, metabolic, and genetic phenomena pertinent to understanding the growth, development, ecology, regulation, and reproduction of microorganisms. The course emphasizes the interdependence of physiological and genetic approaches to microbiology. Lec.

MCB 4404L Microbial Physiology and Genetics Laboratory (1) AS BIO
CP/PR: MCB 4404C. Laboratory portion of Microbial Physiology and Genetics relating to biochemical characteristics and metabolic capabilities of bacteria and so on.

MCB 4502C Virology (3) AS BIO
PR: MCB 3030C. The biology of viruses associated with plants, animals, and bacteria will be considered; the nature of viruses, mechanisms of viral pathogenesis, and interactions with host cells.

MCB 4910 Microbiology Undergraduate Research (1-4) AS BIO
PR: CI. And completion of Department contract before registration. For B.S. Microbiology majors only. S/U only. Individual investigation with faculty supervision. S/U only.

MCB 4934 Seminar in Microbiology (1) AS BIO
PR: Senior or advanced junior standing. S/U only. Biology majors may take for elective credit.

MCB 5206 Public Health and Pathogenic Microbiology (3) AS BIO
PR: MCB 3030C. 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.

MCB 5600 Applied and Environmental Biology (3) AS BIO
PR: MCB 3030C 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.

MCB 5811 Medical Mycology (3) AS BIO
PR: MCB 3030C. A modern biological survey of the medically important fungi (yeasts and molds) important to microbiologists and environmental scientists.

MET 4002 Climatology (4) AS GPY
PR: GEO 3013 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.

MET 4010C Meteorology (4) AS GPY
PR: GEO 3013 or CI. The earth's atmosphere and its processes; weather forecasting and interpretation.

MET 4532C Tropical Meteorology (4) AS GPY
PR: GEO 3013, 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 topics. Students will take an in-depth look at hurricane
MIS 2610 Leadership Laboratory (0) US MIS
Required with all classes. Involves leadership responsibilities for the planning, coordination, execution and evaluation of various training events and activities. Students develop, practice and refine leadership skills by serving and being evaluated in a variety of responsible positions.

MIS 3302 Small Unit Operations (3) US MIS
PR: Permission of Department. Series of practical opportunities to lead small groups, receive personal assessments and encouragement, and lead again in situations of increasing complexity. Uses small unit operations and opportunities to plan and conduct training for lower division students both to develop such skills and practicing leading.

MIS 3404 Leadership Fundamentals - Tactics And Camp Preparation (3) US MIS
PR: Permission of Department. Analyze tasks; prepare written or oral guidance for team members to accomplish tasks. Delegate tasks and supervise. Plan for and adapt to the unexpected organizations under stress. Examine and apply lessons from leadership case studies. Examine importance of ethical conduct, greater awareness and sensitivity to ethical issues, and the opportunity to apply these abilities in real world case study situations. Included are seminars to acquaint the new lieutenant with his/her relationship to NCOs, buddy grade officer, senior, and troops.

MIS 4410 Army as a Profession (2) US MIS
PR: Permission of Department. Designed to prepare cadets for duty as commissioned officers. Instruction centers around proficiency/familiarity with the military justice system, military administration, the Officer Professional Management System, international laws of war, and principles of management/leadership.

MIS 4421 Seminar in Military Leadership & Management (3) US MIS
PR: Permission of Department. Provides a basic understanding of the professional soldier’s responsibilities to the Army and the nation. Attempts to improve ethical decision-making skills through an examination of the need for ethical conduct, greater awareness and sensitivity to ethical issues, and the opportunity to apply these abilities in real world case study situations. Included are seminars to acquaint the new lieutenant with his/her relationship to NCOs, buddy grade officer, senior, and troops.

MHS 4031 Introduction to Medical Technology (2) AS IAS
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on professional ethics, safety regulations, quality control, phlebotomy, laboratory mathematics, and computer applications. Includes study of professional ethics, safety regulations, quality control, phlebotomy, laboratory mathematics, and computer applications. Includes study of professional ethics, safety regulations, quality control, phlebotomy, laboratory mathematics, and computer applications. Includes study of professional ethics, safety regulations, quality control, phlebotomy, laboratory mathematics, and computer applications. Includes study of professional ethics, safety regulations, quality control, phlebotomy, laboratory mathematics, and computer applications. Includes study of professional ethics, safety regulations, quality control, phlebotomy, laboratory mathematics, and computer applications. Includes study of professional ethics, safety regulations, quality control, phlebotomy, laboratory mathematics, and computer applications.
MTG 5317 Topology II (3) AS MTH
PR: MTG 5316. The fundamental group; elements of homotopy theory and homology theory.

MUC 2221 Composition (3) FA MUS
PR: MUT 1112 and DPR. Private instruction in original composition. Required of composition majors.

MUC 2301 Introduction To Electronic Music (3) FA MUS
History and repertory of electronic music; standard sound studio techniques; basic electronics as applied in electronic sound synthesis; mathematics for music composition and electronic music.

MUC 3231 Composition (3) FA MUS
PR: Necessary competency at junior level determined by faculty jury. DPR. Private instruction in original composition. Required of composition majors.

MUC 3401 Electronic Music-Analog Synthesis I (3) FA MUS
PR: MUC 2301 and DPR. Composition for tape medium with analog synthesizers; use of sound recording studio; repertory or analog music synthesis; technical basis of analog systems design and construction.

MUC 3402 Electronic Music-Analog Synthesis II (3) FA MUS
PR: MUC 2301 and DPR. Composition for tape medium with analog synthesizers; use of sound recording studio; repertory or analog music synthesis; technical basis of analog systems design and construction.

MUC 3441 Electronic Music-Digital Synthesis I (3) FA 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) FA 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 4241 Composition (3) FA MUS
PR: Necessary competency at senior level determined by faculty jury. DPR. Private instruction in original composition. Required of composition majors, a minimum of six semester hours.

MUC 4403 Electronic Music-Real-Time Performance I (3) FA MUS
PR: MUC 3402 and MUC 3442 or equivalent. DPR. Composition for analog/digital equipment, performance applications; sound synthesis, interfacing electronics with conventional instruments.

MUC 4404 Electronic Music-Real-Time Performance II (3) FA MUS
PR: MUC 3402 and MUC 3442 or equivalent. DPR. Composition for digital equipment, performance applications; sound synthesis, interfacing electronics with conventional instruments.

MUC 4501 Seminar In New Musical Systems (3) FA MUS
PR: CI. DPR. Experimental sound sources and ensemble groupings; creation of new instruments; unfamiliar sonic materials and unique social contexts for music.

MUC 4520 Jazz Composition (3) FA MUS
PR: MUT 3354 and/or DPR. Computer assisted composition for tape medium with analog/digital equipment, performance applications; sound synthesis, interfacing electronics with conventional instruments.

MUC 5625 Jazz Composition (2) FA MUS
PR: CI. Required of all composition majors. Private instruction in original composition.

MUE 2090 Theoretical Bases Of Music Education (3) FA MUS
PR: DPR. The course is designed to investigate music education practices in the schools. Through the experience and information offered in this course a student will be able to determine his/her commitment to professional music education.

MUE 2460 Beginning Woodwind Techniques (1) FA MUS
PR: Sophomore standing, non-woodwind major. DPR. The course introduces the fundamentals of woodwind instrument pedagogy. In addition basic techniques of woodwind performance are taught through the study of clarinet and flute.

MUE 2460 Beginning Brass Techniques (1) FA MUS
PR: Sophomore standing, non-brass major. DPR. The course introduces the fundamentals of brass wind instrument pedagogy. In addition, basic techniques of brass performance are taught through the study of trombone and trumpet.

MUE 3421 Choral Materials Practicum (1) FA MUS
PR: DPR. A study of choral materials in a laboratory setting appropriate to elementary and secondary school music programs. Course content will change each semester.

MUE 3422 Band Materials Practicum (1) FA MUS
PR: DPR. A study of band materials in a laboratory setting appropriate to elementary and secondary school music programs. Course content will change each semester.
MUH 3016 Survey Of Jazz (3) FA MUS
PR: DPR. A study from 1890 to the present in a laboratory setting, appropriate to elementary and secondary school music programs. Course content will change each semester.

MUH 3451 Advanced Woodwind Techniques (1) FA MUS
PR: Sophomore standing, woodwind instrument major or MUE 2450. DPR. The course develops knowledge and skills dealing with advanced principles of teaching and performing on woodwind instruments.

MUH 3461 Advanced Brass Techniques (1) FA MUS
PR: Sophomore standing, brass instrument major or MUE 2460. DPR. The course develops knowledge and skills dealing with advanced principles of teaching and performing on all brass instruments.

MUH 4110 Music For The Child (3) FA MUS
PR: Admission to the College of Education. DPR. Music fundamentals, the development of music skills and knowledge of music materials and teaching strategies for presenting music to children in the elementary school.

MUH 4311 Music In The Elementary School (3) FA MUS
PR: DPR. A study of principles, techniques, materials, and activities as they relate to a comprehensive music curriculum in Grades K-6.

MUH 4321 Foundations Of Choral Music (2) FA MUS
PR: Major status or DPR. This course deals with the development of knowledge and skills needed to effectively organize and teach a choral music program for elementary and intermediate grade level students. Includes student observation and participation component.

MUH 4330 Classroom Music In The Secondary School (3) FA MUS
PR: DPR. Development and implementation of methods and techniques for teaching music to the student not participating in secondary school music performing groups.

MUH 4331 Choral Methods In The Secondary School (3) FA MUS

MUH 4332 Instrumental Music In The Secondary School (3) FA MUS

MUH 4352 Foundations Of Instrumental Music (2) FA MUS
PR: DPR. MUE 2450, MUE 2460, MVP 1211. Junior standing. Introduction to the foundation of instrumental music instruction in the elementary and middle school.

MUH 4480 Marching Band Techniques (2) FA MUS
PR: Junior standing. DPR. This course is required of instrumental music education majors. It will provide the student with the needed skills in creating for and teaching the public school marching band.

MUH 4481 Seminar In Music (2) FA MUS

MUH 4940 Internship: Music Education (1-12) FA MUS
CP: MUE 4940 or only DPR. Open to all students. 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.

MUG 3104 Basic Conducting (2) FA MUS
PR: DPR. The study and practical application of basic conducting techniques. Development of skills related to the conducting of musical scores.

MUG 3402 Instrumental Conducting (2) FA MUS
PR: MUG 3404 and DPR. A study of those techniques of conducting unique to instrumental music ensembles: baton technique, score reading, terminology, rehearsal techniques and programming.

MUG 2051 Folk And Traditional Music Of World Cultures FA AF (3) FA MUS
PR: MUG 4304 and DPR. A comparative study of the stylistic traits and functions of the folk and traditional music of all cultures, 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.

MUG 2632 Music In The United States FA (3) FA MUS
PR: MUE 2450. This course offers an overview of the most prominent artists and literature, the course will focus on the cultural dynamics involved in the development of jazz music.

MUG 3300 Music History/Medieval And Renaissance (2) FA MUS
PR: DPR. Required of music majors; a study of the historical development of musical styles of the Medieval and Renaissance periods and of the music of those periods.

MUG 3301 Music History/Baroque And Classic MW (3) FA MUS
PR: MUL 2111. DPR. Required of music majors; open to non-majors with DPR. A study of the historical development of musical styles of the Baroque and Classic periods and of the music of those periods.

MUG 3302 Music History/Romantic And 20th Century MW (3) FA MUS
PR: MUL 2111. DPR. Required of music majors; open to non-majors with DPR. A study of the historical development of musical styles of the Romantic and Twentieth Century eras and of the music of those periods.

MUL 4058 Intercultural Music In The Twentieth Century MW (3) FA MUS
PR: MUL 2051 or MUL 2111. DPR. An in-depth investigation of composers born after c. 1880, from all parts of the world, who have attempted to integrate elements from two or more cultures into their compositions.

MUL 4501 History Of Jazz (3) FA MUS
PR: MUL 1112, DPR. An in-depth study of the historical development of Jazz, including the representative musical literature and sociological implications.

MUL 2111 Introduction To Music Literature 6A HP FA (3) FA MUS
PR: MUL 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 AF (2-3) FA MUS
Open only to non-music majors. Lectures and live performances by artists of significant works from the literature for the piano; analysis and illustration in performance of the abstract and aesthetic elements in music which will be performed by the artist-performer.

MUL 3012 Music In Your Life FA (3) FA MUS
Open only to non-music majors. A study of the art of music and its materials, designed to develop an understanding of basic principles of music and a technique for listening to music.

MUN 1100 University Pep Band (1-3) FA MUS
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.

MUN 1110 University Marching Band (1) FA MUS
This course provides performance experiences with the Marching Band. The course is open to any major area.

MUN 3143 Wind Ensemble (1) FA MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing medium. Study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.

MUN 3213 University Orchestra (1) FA MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing medium; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.

MUN 3311 University Singers (1) FA MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing medium; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.

MUN 3334 Chamber Singers (1) FA MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing medium; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.

MUN 3383 University-Community Chorus (1) FA MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing medium; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.

MUN 3411 String Quartet (1) FA MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing medium; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and solo.

MUN 3420 Saxophone Ensemble (1) FA MUS
MUS 4930 Selected Topics In Music (1-4) FA MUS
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, and piano.

MUS 4905 Directed Study (1-4) FA MUS
PR: DPR. Independent studies in the various areas of music; course of study and credits must be assigned prior to registration.

MUS 4935 Music Senior Seminar (1) FA MUS
PR: DPR. S/U only. To aid students to understand and appreciate their own art through critical and aesthetic judgments of their colleagues.

MUT 3713 Jazz Ensemble (1) FA MUS
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.

MUT 3714 Jazz Chamber Ensemble (1) FA MUS
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.

MUS 3503 Opera Workshop (1) FA MUS
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.

MUS 2201 Language Diction For Singers (1) FA MUS
PR: DPR. Required of voice performance majors. Specialized study in Language Diction for Singers. Specific language varies, to be announced to students by their colleagues.

MUS 4900 Directed Reading (1-3) FA MUS
PR: DPR. Selection of topic and materials must be agreed upon and appropriate credit must be assigned prior to registration. A contract signature is required for registration.

MUS 4905 Directed Study (1-4) FA MUS
PR: DPR. Independent studies in the various areas of music; course of study and credits must be assigned prior to registration.

MUT 4311 Orchestration II (1) FA MUS
PR: MUT 4310 or DPR. A study of the music of the 16th century from a theoretical standpoint; 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) FA MUS
PR: MUT 2117, DPR. A study of 20th century theoretical concepts; development of skills in perceiving and writing music in the style of the period through the use of aural and visual analysis.

MUT 5051 Graduate Review Of Music Theory (2) FA 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) FA 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) FA 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) FA 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) FA 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) FA 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) FA 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) FA 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) FA 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) FA 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) FA 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) FA 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 3335 Tuba Principal (2) FA 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 3431 Trumpet Major (3) FA MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVB 3432 French Horn Major (3) FA MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVB 3433 Trombone Track (3) FA MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVB 3441 French Horn Major (3) FA MUS
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVB 3444 French Horn Major (3) FA MUS
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVB 3446 Tuba Major (3) FA MUS
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVB 4210 Applied Jazz Piano (1) FA MUS
PR: DPR. Course is open by audition only. One-half 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 5254 Applied Euphonium (2) FA 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.

MVB 5255 Applied Tuba (2) FA 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.

MVJ 1213 Applied Jazz Guitar (1) FA MUS
PR: DPR. Course is open by audition only. One-half 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 1310 Applied Jazz Percussion (1) FA 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 1311 French Horn Major (3) FA MUS
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 1410 Applied Jazz Piano Major (3) FA 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) FA 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) FA 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) FA 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 2321 Jazz Guitar Principal (2) FA 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) FA 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 Percussion Principal (2) FA 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 2420 Applied Jazz Piano Major (3) FA MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 2423 Jazz Guitar Major (3) FA MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 2424 Jazz Bass Major (3) FA MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 3333 Jazz Guitar Principal (2) FA 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 Principal (2) FA 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 Jazz Piano Major (3) FA 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 Bass Major (3) FA 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 Guitar Principal (2) FA 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 3344 Jazz Bass Principal (2) FA 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 3349 Jazz Percussion Principal (2) FA 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 4443 Jazz Guitar Major (3) FA 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) FA 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) FA 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) FA MUS
PR: MUT 2642 and DPR. Necessary competency at junior level determined by faculty jury examination. Private and class instruction.

MVJ 5250 Applied Jazz Piano Secondary (2) FA 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) FA 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) FA 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 5259 Applied Jazz Percussion Secondary (2) FA 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 5951 Applied Jazz Performance (2) FA 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.

MVK 1111 Keyboard Skills I (2) FA MUS
PR: DPR. Class is elementary piano and music fundamentals designed for students with limited keyboard experience. Primary emphasis is placed on sight-reading, accompanying, transposition, harmonization, basic technique, and appropriate literature.

MVK 1211 Applied Piano (1) FA 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.

MVK 1311 Piano Principal (2) FA 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.

MVK 1411 Piano Major (3) FA 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.

MVK 1811 Beginning Piano I (2) FA MUS
Class is elementary piano and music fundamentals designed for students with limited keyboard experience. Primary emphasis is placed on sight-reading, accompanying, transposition, harmonization, basic technique, and appropriate literature.

MVK 1821 Beginning Piano II (2) FA MUS
PR: DPR. Class is elementary piano and music fundamentals designed for students with limited keyboard experience. Primary emphasis is placed on sight-reading, accompanying, transposition, harmonization, basic technique, and appropriate literature.

MVK 2111 Keyboard Skills II (2) FA MUS
PR: MVK 1111 or DPR. Class is elementary piano and music fundamentals designed for students with limited keyboard experience. Primary emphasis is placed on sight-reading, accompanying, transposition, harmonization, basic technique, and appropriate literature.

MVK 2112 Keyboard Skills Iv (2) FA MUS
PR: MVK 2111 or DPR. Class is elementary piano and music fundamentals designed for students with limited keyboard experience. Primary emphasis is placed on sight-reading, accompanying,
transposition, harmonization, basic technique, and appropriate literature.

MVP 2321 Piano Principal (2) FA 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.

MVP 2421 Piano Major (3) FA MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVP 3111 Music Majors, Level V (2) FA MUS
PR: DPR. Class is elementary piano and music fundamentals designed for students with limited keyboard experience. Primary emphasis is placed on sight-reading, accompanying, transposition, harmonization, basic technique, and appropriate literature.

MVP 3331 Piano Principal (2) FA 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.

MVP 3431 Piano Major (3) FA MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVP 4341 Piano Principal (2) FA MUS
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVP 4441 Piano Major (3) FA 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.

MVP 4640 Piano Pedagogy I (4) FA MUS
PR: DPR. May be elected by undergraduate music majors; emphasis on the business management of the music studio, and the musical responsibilities of the studio teacher, the techniques of private instruction.

MVP 5251 Applied Percussion (1) FA 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.

MVP 5441 Percussion Principal (3) FA MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 1211 Applied Viola (1) FA 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 1217 Applied Double Bass (2) FA 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) FA 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) FA MUS
PR: DPR. Required of all music education and composition majors. 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.

MVS 1315 Violin Major (3) FA 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 1317 Viola Major (3) FA MUS
PR: DPR. Required of all 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 2322 Viola Principal (2) FA 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 2323 Violoncello Principal (2) FA 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 2324 Double Bass Principal (2) FA 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) FA MUS  
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 2422 Viola Major (3) FA MUS  
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 2423 Cello Major (3) FA MUS  
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 2424 Double Bass Major (3) FA MUS  
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 3331 Violin Principal (2) FA 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 3332 Viola Principal (2) FA 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 3333 Violoncello Principal (2) FA 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 3334 Double Bass Principal (2) FA 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 3431 Violin Major (3) FA MUS  
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 3432 Viola Major (3) FA MUS  
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 3433 Cello Major (3) FA MUS  
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 3434 Double Bass Major (3) FA MUS  
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 4344 Double Bass Principal (2) FA 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 4441 Violin Major (3) FA MUS  
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 4442 Viola Major (3) FA MUS  
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 4443 Cello Major (3) FA MUS  
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 4444 Double Bass Major (3) FA MUS  
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVS 5251 Applied Violin (1) FA 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.

MVS 5252 Applied Viola (2) FA 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.

MVS 5254 Applied Double Bass (2) FA 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.

MVS 5253 Applied Cello (2) FA 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.

MVS 5255 Applied Bassoon (1) FA MUS  
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVV 1211 Applied Voice (1) FA MUS  
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.

MVV 1311 Voice Principal (2) FA 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.

MVV 1411 Voice Major (3) FA MUS  
PR: DPR. Required of all non-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.

MVV 2321 Voice Principal (2) FA 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.

MVV 2421 Voice Major (3) FA MUS  
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVV 3331 Voice Principal (2) FA 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.

MVV 3431 Voice Major (3) FA MUS  
PR: DPR. Required of all non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVV 4341 Voice Principal (2) FA 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.

MVV 4441 Voice Major (3) FA MUS  
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors.
MVW 1415 Saxophone Major (3) FA 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.

MVW 2321 Flute Principal (2) FA 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 2322 Oboe Principal (2) FA 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 2323 Clarinet Principal (2) FA 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 Bassoon Principal (2) FA 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) FA 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) FA 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) FA MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 2423 Clarinet Major (3) FA 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) FA 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) FA 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) FA 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 3332 Oboe Principal (2) FA 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) FA 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) FA 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) FA 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 3431 Flute Major (3) FA 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 Oboe Major (3) FA MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.
MVW 3433 Clarinet Major (3) FA MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 3434 Bassoon Major (3) FA 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) FA 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) FA 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) FA 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) FA 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) FA 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) FA 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 4441 Flute Major (3) FA 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) FA 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) FA 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) FA 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) FA MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 5251 Applied Flute (2) FA MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed rectal requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 5252 Applied Oboe (2) FA MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed rectal requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 5253 Applied Clarinet (2) FA MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed rectal requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 5254 Applied Bassoon (2) FA MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed rectal requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 5255 Applied Saxophone (2) FA MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed rectal requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

NUR 3064C Health Assessment Across The Life Span (3) NUR
PR: Admission to nursing major or CI. Focuses on history taking, physical appraisal skills basic to biopsychosocial assessment across the life span. Emphasizes assessment phase of the diagnostic reasoning process to identify alterations in functional health patterns.

NUR 3113 Culture of Nursing (2) NU NUR
PR: Admission to nursing major or CI. Introduction to evolving role of the professional nurse. Examines historical context of nursing's development, nursing's theoretical progression, and wellness-focused practice as a culture.

NUR 3114 Introduction to Clinical Judgment (3) NU NUR
PR: Concurrent with NUR 3114L. Admission to nursing major. Focuses on the basic concepts of health, functional health patterns and communication. Critical thinking is used to analyze the effects of changes in health status and nursing implications.

NUR 3114L Introduction to Clinical Practice (2) NU NUR
PR: Concurrent with NUR 3114. Admission to nursing major. Includes laboratory, clinical experiences, and selected psychomotor skills. Beginning application of clinical judgment in implementing therapeutic nursing interventions for adults.

NUR 3145 Pharmacology in Nursing Practice (2) NU NUR
PR: Admission to nursing major or CI. Examines pharmacotherapeutics; pharmacodynamics; pharmacokinetics; adverse reactions and contraindications; therapeutic indications according to functional health patterns; and nursing implications.

NUR 3215 Adult Health I (3) NU NUR
PR: NUR 3113, NUR 3114, NUR 3114L, NUR 3064C, Concurrent with NUR 3215L. Nursing Majors. Focuses on adults with alterations in health maintenance, nutritional/metabolic, elimination, and sexuality/reproductive functional health care patterns. Critical thinking is used to analyze the effects of interventions on individuals and groups.

NUR 3215L Clinical Practice in Adult Health I (3) NU NUR

NUR 3284C Gerontological Nursing (2) NU NUR
PR: NUR 3113, NUR 3114, NUR 3114L, NUR 3064C. Nursing Majors. Focuses on theories of aging and human development; assessment of functional health patterns; and planning health promotion and disease prevention activities with older adults. Critical thinking is used to analyze the effects of interventions on individuals and groups.

NUR 3829 Ethical Legal Aspects in Nursing and Health Care MW (3) NU NUR
PR: NUR 3113 or CI. Nursing Majors. Introduction to contemporary ethical 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.

NUR 4041 Culture In Nursing Practice (2) NU NUR
PR: NUR 3113 or CI. Examines historical context of nursing's professional role and the professional nurse. Examines historical context of nursing's theoretical progression, and wellness-focused practice as a culture.

NUR 4041L Clinical Practice In Nursing Practice (2) NU NUR
PR: Concurrent with NUR 4041. Examines historical context of nursing's professional role and the professional nurse. Examines historical context of nursing's theoretical progression, and wellness-focused practice as a culture.

NUR 4165 Nursing Inquiry (2) NU NUR
PR: NUR 3113, Nursing Majors or CI. An exploration of the research process. Emphasis on identification of researchable nursing problems and evaluation of research that is applicable to nursing practice.

NUR 4194 An Interdisciplinary Perspective in HIV Disease 6A MW LW (3) NU NUR
PR: Provides an interdisciplinary perspective on HIV disease. Topics include the etiology, spectrum, and treatment of HIV disease; international perspectives; issues of race, gender, and ethnicity; values, ethics, and their influences on responses to HIV; and how the media has shaped the epidemic.

NUR 4216 Adult Health II (3) NU NUR
PR: NUR 3629, NUR 3145, NUR 3215, NUR 3215L, NUR 3284C. Concurrent with NUR 4216L. Nursing Majors. Focuses on adults with health problems related to activity/exercise and cognitive/perceptual health patterns. Critical thinking is used to analyze the effects of changes in health status.

NUR 4216L Clinical Practice In Adult Health II (3) NU NUR
NUR 4245 Wellness: Health Promotion and Maintenance in Nursing (2) NU NUR
Open to non-nursing majors. Introduction to concepts of wellness and health promotion. Concepts of wellness include nutrition, exercise, rest, activity, spiritual factors and their relationship to health status and the promotion and application to nursing practice.
NUR 4395C Specialized Techniques in Child Health Assessment (3) NU NUR
Designed to teach the reliable administration and interpretation of the NCAST II and HOME instruments. Inter-observer reliability will be achieved through observation of parent-child interaction.
NUR 4525 Psychiatric/Mental Health (2) NU NUR
PR: NUR 4616, NUR 4616L, NUR 4636, NUR 4636L. Concurrent with NUR 4525. Nursing Majors. Focuses on clinical intervention using critical thinking, communication and reasoning skills with clients who have complex psychiatric rehabilitative care. Opportunities are offered to apply knowledge of psychopathology and psychopharmacologic therapies.
NUR 4616 Family Health (4) NU NUR
PR: NUR 4216, NUR 4216L, NUR 4041. Concurrent with NUR 4616. Nursing Majors. Focuses on health promotion, identification of risk factors, illness care, disease prevention, and health restoration and maintenance. Emphasis is placed on the family as a unit and the interplay of the family with the community and the nursing profession.
NUR 4616L Clinical Practice In Psychiatric/Mental Health (1) NU NUR
PR: NUR 4616, NUR 4616L, NUR 4636, NUR 4636L. Concurrent with NUR 4525. Nursing Majors. Focuses on clinical intervention using critical thinking, communication and reasoning skills with clients who have complex psychiatric rehabilitative care. Opportunities are offered to apply knowledge of psychopathology and psychopharmacologic therapies.
NUR 4636 Community Health (2) NU NUR
PR: NUR 4216, NUR 4216L, NUR 4041. Concurrent with NUR 4636. Nursing Majors and admission to the major for RN or BS students. Focuses on the interrelationship of health care concepts essential with clients who have acute, chronic and mental health illnesses. Examines psychopathology, psychopharmacologic therapies and community resources.
NUR 4636L Clinical Practice In Community Health (2) NU NUR
PR: NUR 4216, NUR 4216L, NUR 4041. Concurrent with NUR 4636. Nursing Majors. Includes therapeutic interventions for childbearing families and childbearing families within a variety of settings.
NUR 4643 Nursing Interventions into the Acute Effects of Drug and Alcohol Abuse (2) NU NUR
Focuses on the assessment and treatment of individuals and families who are in the acute phases of addiction. Emphasis will be placed on treatment outcomes for designated populations with consideration for cultural, socioeconomic, political and legal/ethical factors.
NUR 4644 Nursing Interventions into the Rehabilitation of Clients who Abuse Substance (2) NU NUR
Focuses on models of treatment and interventions for clients and families who are in the rehabilitation and relapse prevention phases of treatment for addictions. Emphasis will be placed on rehabilitation outcomes for designated populations with consideration for criminal justice systems and explores principles of leadership/management and ethical/legal issues within the systems. Skills of leaders and managers are implemented in nursing practice with individuals and groups.
NUR 4905C Independent Study (1-5) NU NUR
PR: Permission of faculty. Open to majors and non-majors. Individual or group investigation of problems relevant to the health of individuals or groups. Project requirements individually planned with faculty preceptor.
NUR 4935 Selected Topics In Nursing (2-8) 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 activities.
NUR 4948L Preceptorship (3) NU NUR
PR: NUR 4525, NUR 4525L, NUR 4616, 4616L, NUR 4636, NUR 4636L. Nursing Majors. Individually contracted practicum collaboratively planned by students, faculty and agency personnel.
OCE 2001 Introduction to Oceanography NS (3) MS MSC
Overview of biological, chemical, geological, and physical oceanography. Also listed under Geology.
OCE 4930 Selected Topics in Marine Science (1-4) MS MSC
Selected topics in the marine sciences 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: ORI 2000 or CI. The study, rehearsal, and performance of literature for Readers Theatre and Chamber Theatre productions.
ORI 4310 Group Performance of Literature (3) AS SPE
PR: ORI 2000 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. CP: ORI 3950. 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 3003 Introduction to Public Administration SS (3) AS PAD
Examination of organizational behavior and change, policy process, public management, financial administration, and personnel management from the perspective of public and social delivery.
PAD 4144 Nonprofit Organizations and Public Policy (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 Personnell and Supervision in Today's Diverse Organizations (3) AS PAD
The study of concepts, principles and practices of personnel management and supervision that influence the attainment of desired performance goals in today's public and non-profit organizations. Course participants will explore issues that influence the successful management of human resources in dynamic employment settings.
PAD 4707 Managing Information Resources in the Public Sector (3) AS PAD
The study of the fundamental concepts, theories, principles and practices in public information management. Internet access is required.
PAD 4935 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 discretion. 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 (3) AS PAD
An examination of the constitutional and statutory bases and limitations of the administrative process, administrative adjudication, rule making, and the judicial review of such actions.

PAD 5700 Research Methods in Public Administration (3) AS PAD
This course provides the student with the fundamental skills and knowledge of how research is designed, implemented, analyzed, and utilized in public sector agencies. Available to majors and non-majors.

PAD 5807 Administration of Urban Affairs (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 success is accomplished in a variety of socio-economic environments.

PCB 1511 Molecular and Human Genetics (3) AS BIO
PR: Acceptance in USF-Hillsborough Biomedical and Life Science Program. Molecular genetics with applications to biomed-

cal science; genetic engineering; chromosomes, their molecular architecture, abnormalities, and other topics. Laboratory included.

PCB 1910 Topics in Biomedical Science (3) AS BIO
PR: Acceptance in USF-Hillsborough 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 pathogen microbiology, immu-
nology, marine biology, and plant biochemistry. Most of their time is spent working on individual research projects.

PCB 3023 Cell Biology (3) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2111, BSC 2111L, and CHM 2046.
A discussion of the concept and significance of the cell to biology: biological molecules and metabolic processes within the cell; cellular energy conversion systems; and control of cellular metabolism. Lec.

PCB 3023L Cell Biology Laboratory (1) AS BIO
CP/PR: PCB 3023. Laboratory portion of Cell Biology. Metabolic processes within the cell.

PCB 3043 Principles of Ecology (3) AS BIO
PR: 1 year major's Biology. An introduction to the basic principles and concepts of ecology at the ecosystem, community, and popu-

lation level of organization. Lec.-dis.

PCB 3043L Principles of Ecology Laboratory (1) AS BIO

PCB 3063 General Genetics (3) AS BIO
PR: 1 year major's Biology. Introduction to genetics including the fundamental concepts of Mendelian, molecular and population genetics. Lec.-dis.

PCB 3063L General Genetics Laboratory (1) AS BIO
CP/PR: PCB 3063. Laboratory investigation techniques in general genetics including Mendelian and non-Mendelian relationships, and gene interactions.

PCB 4064C Experimental Genetics (3) AS BIO
PR: PCB 3063. Experimental analysis of genetic systems, Lec.-lab.

PCB 4674 Organic Evolution (3) AS BIO
PR: PCB 3023. Topics in modern developmental biology to be covered in lecture and through readings so as to gain a working knowledge and understanding of the cellular and molecular mecha-

nisms of cell differentiation in both plants and animals.

PCB 5306 Limnology (3) AS BIO
PR: PCB 3043, CHM 2046, PHY 2053, or CI. An introduction to the physical, chemical, and biological nature of fresh-water environ-

ments. Lec.

PCB 5306L Limnology Laboratory (1) AS BIO
CP/PR: PCB 5306. Laboratory portion of Limnology. Laboratory and field experience in the area of aquatic ecology.

PCB 5415 Behavioral Ecology (3) AS BIO
PR: PCB 3043 or PCB 4674. An emphasis on the evolutionary mechanisms that influence an organism's behavioral responses to

environmental events. The theoretical framework is presented and analyzed.

PCB 5525 Molecular Genetics (3) AS BIO
PR: PCB 3063. Detailed examination of DNA, RNA and protein synthesis; the effects of mutations on proteins, cellular control; selected aspects of viral, bacterial, and fungal genetics.

PCB 5835 Neurophysiology (3) AS BIO
A comparative analysis of the physiochemical basis and evolution of nervous systems and sensory mechanisms.

PCB 5845C Principles of Neuroscience (4) AS BIO
PR: PCB 4723. Structure and function, with an emphasis on the neuroanatomy, neuropharmacology, and neurophysiology of the human brain. Topics include brain imaging, dementia, and mechanisms of learning/memory. Brain resonance techniques are also discussed, as are basic neuropatho-

logical processes that result in abnormal brain function.

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 1341L. 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 2441 Karate (2) ED EDJ
S/U only. Introductory experiences in the sport of Karate. Fundamental skills, strategy, information, and participation.

PEP 2930 Selected Topics (1-2) ED EDJ
S/U only. DPR. Activities offered are selected to reflect student need and faculty interest.

PEN 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.

PEN 2113 Lifeguard Training (2) ED EDJ
PR: PEN 1122 or equivalent. S/U only. Knowledge and skills necessary for saving the lives of others in the event of aquatic emergency.

PEN 2122 Swimming II (2) ED EDJ
PR: PEN 1121 or equivalent. S/U only. Continuation of PEN 1121. Special emphasis on development of endurance and efficient stroking.

PEN 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.

PEP 3940 Practicum in Health Promotion/Wellness (4) ED EDJ
PR: Completion of Semesters I and II and admission to the College of Education. S/U only. Practical experience as a professional in a community or worksite health promotion or wellness program.
PET 3617C Orthopaedic Physical Assessment I (Upper Extremity) (3) EDP
PR: Completion of Semester I and II in Wellness Leadership track or DPR. Designed to develop knowledge and skills in communication and counseling that is specific to wellness and health promotion.

PEQ 3170 Aquatic Exercise (2) EDP
An instructor training course in aquatic exercise. Focuses on teaching aerobic, strength, flexibility, and weight control exercises performed in swimming pools. Open to non-majors.

PET 2522C Care and Prevention of Physical Injuries (3) EDP
DPR. Principles and techniques of conditioning athletes for competition; prevention and care of injuries in physical education and athletic activities.

PET 3031 Motor Development and Assessment (3) EDP
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 3080 Survey of Wellness Program (3) EDP
An analysis of various types of wellness programs in the public and private sector including community-based programs, commercial health and fitness enterprises, government-based programs, corporate-based programs, and hospital health and fitness centers.

PET 3252 Issues in Sport MW (3) EDP
A study of organized sport as a pervasive part of contemporary society. By increasing understanding of some of the issues and controversies based in the structure of sport and society, individuals will be able to understand and improve sport experiences for themselves and others.

PET 3310 Kinesiology (3) 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 3351 Exercise Physiology I (3) 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 3421 Curriculum and Instruction in Physical Education (3) EDP
Development of knowledge and skills related to the instruction process of physical education. Preparation of materials and planning instruction.

PET 3422 Instructional Design and Content: Movement Experiences (3) EDP
PR: CC. This course develops a variety of motor skills and includes the study of systems for analyzing movement. It prepares students to plan and conduct movement experiences in a wide variety of educational settings.

PET 3441 Instructional Design and Content: Middle School Physical Education (3) EDP
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) EDP
PR: CC. 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) EDP
PR: CC. The study and practice of techniques used when assessing athletic injuries to the lower extremity, hips, pelvis and gait.

PET 3621C Prevention of Athletic Injuries (3) EDP
PR: CC. Advanced principles in the selection, fabrication and application of protective equipment, tape, splints, casts, braces and other therapeutic devices commonly used in athletic training and sports medicine settings. Theory and practice in risk management and injuries related to environmental factors.

PET 3624C Emergency Management of Athletic Trauma & Illness (3) EDP
PR: CC. Theoretical and practical application of therapeutic exercise and movement science. Includes techniques in Feldenkrais movement patterns, aquatic exercise, lifting protocols, plyometric training, isokinetic testing, stability ball training, and a variety of common exercise equipment.

PET 3640 Adapted Physical Education (3) EDP
A study of characteristics, programming needs and teaching of physical education for students with disabilities.

PET 3660 Athletic Training Administration and Policy (3) EDP
PR: CC. 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 examinations, medical ethics, current educational concepts, and administrative policy.

PET 3670L Clinical Instruction in Athletic Training I (3) EDP
PR: CC. Observation and performance of basic 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) EDP
PR: PET 3670L CC. Continuation of clinical experience 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 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 3831 Selected Topics (1-3) EDP
DPR. Topics offered are selected to reflect student need and faculty interest.

PET 3931 Selected Topics (1-3) EDP
An instructor training course in aquatic exercise. Focuses on participant adherence, program design, budgeting, legal liability, and marketing.

PET 3932 Selected Topics (1-3) EDP
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 3942 Physical Education Internship: Elementary, 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 professional development plan developed in previous semesters.

PET 4304 Principles and Issues in Coaching (3) EDP
The application of principles from philosophy, psychology, sociology, and physiology to competitive athletics and coaching.

PET 4353 Exercise Physiology II (3) EDP
PR: PET 3352. A study of Exercise Physiology focusing on the adult. Includes specific populations such as the obese, heart patients, arthritics, elderly, and high performance athletes. Open to non-majors.

PET 4384 Health-Fitness Appraisal & Exercise Prescription (3) EDP
PR: PET 3352. 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 Organization & Administration of Physical Education Programs (3) EDP
A study of organizational and administrative procedures for physical education programs in elementary and secondary schools. Includes scheduling, budget, facilities, extra-curricular programs, and the selection and supervision of staff.

PET 4404 Organization & Administration of Wellness Programs (3) EDP
Design and implementation of various types of wellness programs with emphasis on assessment and evaluation, management, staffing, participant adherence, program design, budgeting, legal liability, and marketing.
PET 4942 Instructional Design and Content: Physical Education Elementary (3) ED EDP
This is the second of a three-course sequence in which students study movement forms and instructional processes suitable for elementary age students.

PET 4933 Instructional Design and Content: Physical Education Elementary II (3) ED EDP
This course prepares students to select, plan, conduct complex movement experiences for students K-6.

PET 4942 Instructional Design and Content: Physical Education Secondary (3) ED EDP
Development of knowledge and skills related to the teaching of selected movement activities such as team sports, gymnastics, and general 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 4943 Instructional Design and Content: Physical Education Secondary II (3) ED EDP
In this course, students are prepared to plan, conduct, and evaluate complex movement experiences in games, dance, gymnastics and physical fitness appropriate for students.

PET 4627 Management of Athletic Injuries (3) ED EDP
PR: CC. Advanced theory of pathology in injury, management of tissue and bone healing environments, disease, internal illness and injury of all general medical conditions. Issues related to radiology and pharmacology are also discussed.

PET 4632C Therapeutic Modalities (3) ED EDP
PR: CC. This course provides an introduction to the theoretical and practical applications of modalities for the prevention, management and rehabilitation of physically active individuals. Concepts pertaining to the use of pharmacology, therapeutics, cryotherapy, electrical stimulation, hydrotherapy, fluidotherapy, ultrasound, biofeedback and manual techniques will be emphasized.

PET 4633C Therapeutic Rehabilitation (3) ED EDP
PR: CC. Theories and applications methods of comprehensive therapeutic treatment and rehabilitation programs for injuries commonly sustained by the physically active.

PET 4672L Clinical Practice in Athletic Training (3) ED EDP
Continuation of clinical experience utilizing new skills under the direction of an NATABOC certified/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 4673L Clinical Practice in Athletic Training II (3) ED EDP
Continuation of clinical experience utilizing new skills under the direction of an NATABOC certified/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, II and III students.

PET 4905 Independent Study: Professional Physical Education (1-4) ED EDP
S/U only, Specialized independent study determined by the student's needs and interests.

PET 4933 Seminar in Sports Medicine (2) ED EDP
The advanced study and discussion of specialized topics and contemporary issues related to the field of athletic training. Emphasis is placed on student production of significant trends and directions in contemporary art photography.

PET 4947 Associate Teaching Physical Education: Secondary (12) ED EDP
S/U 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) AS COM
PR: PGY 3620 or CI. Laboratory required. Development of knowledge and skills of color photography for publication and presentation. Emphasis is on the use of transparency and negative color materials in their application to the media.

PGY 2401C Beginning Photography (3) FA 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 is also provided an overview of significant trends and directions in contemporary art photography.

PGY 3000 Photographic Imaging in Society (3) AS AMS
A study of photographic as an art and a craft in America since the mid-nineteenth century. This course explores the relationship of technological innovations, leading personalities, major movements, and memorable images. Open to majors and non-majors.

PGY 3610 Photojournalism I (3) AS COM
PR: PGY 2110C or PGY 2401C. Laboratory required. Camera operation, darkroom techniques, picture composition; editing, ethics, history, and laws in connection with photojournalism.

PGY 3620 Photojournalism II (3) AS COM
PR: PGY 3610. Laboratory required. Advanced process and practice of photography for publication. Content includes advanced camera and laboratory techniques, production requirements, and theory of photographic color separation used in magazine and newspaper production.

PGY 3930C Special Topics: Photography (3) FA ART
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 5425C Photography (4) FA ART

PHH 2000 Introduction to Philosophy 6A HP (3) AS PHI
An introduction to selected philosophical problems and traditions.

PHH 3002 History of Philosophy: Ancient and Medieval (3) AS PHI
A survey of Western philosophy from the pre-Socratics to the end of the Middle Ages.

PHH 3420 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 4700A 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 course of study on 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 1003 Critical Thinking (3) AS PHI
Methods of thinking that lead to reliable conclusions, with emphasis on concrete cases in ordinary thinking and the sciences.

PHI 2100 Introduction to Formal Logic 6A QM (3) AS PHI
An elementary study of propositional, predicate, class and syllogistic logic with some attention to fundamental problems of logical theory.

PHI 2600 Ethical Theory (3) AS PHI
A study of ethical theories, concepts, problems and methods.

PHI 2610 Ethics and Business (3) AS PHI
An application of traditional ethical theories to contemporary problems in business.
PHI 3630 Contemporary Moral Issues SS (3) AS PHI
Open to all students. A study of contemporary moral issues concerning race, sex, sexism, abortion, poverty, crime, war, suicide, and human rights in general.

PHI 3633 Biomedical Ethics (3) AS PHI
This course will focus on the ethical issues arising from advances in medical practice, delivery of health care, and scientific research.

PHI 3636 Professional Ethics (3) AS PHI
An examination of the ethical problems that professionals will face in the complex, global society of the next few decades: confidentiality, individuality, privacy, and informed consent. Topics may include etiquette, dress, and professional deportment.

PHI 3640 Environmental Ethics SS (3) AS PHI
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.

PHI 3700 Philosophy of Religion 6A SS (3) AS PHI
Analysis of religious experience and activity and examination of principal religious ideas in light of modern philosophy.

PHI 3905 Directed Study (1-4) AS PHI
PR: CI. Approval slip from instructor required. Individual study directed by a faculty member.

PHI 3930 Selected Topics (1-4) AS PHI
PR: CI. Selected topics according to the needs of the student.

PHI 4073 African Philosophy MW (3) AS PHI
A descriptive and analytical study of African philosophical thought, focusing on the confrontation of Western, African, and African-American ways of thinking. Topics may include African philosophy in general, and the philosophy of a particular country or region.

PHI 4320 Philosophy of Mind 6A MW (3) AS PHI
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.

PHI 4632 Feminist Ethics MW (3) AS PHI
A study of the varied approaches to moral reasoning taken by feminist ethical writers such as Mill, Milligan, Daly, Hoagland and others. May also be taken for credit in Women's Studies.

PHI 4670 Contemporary Ethical Theory (3) AS PHI
A survey of contemporary ethical theories, focusing both on the language about the status of ethical theorizing--moral realism, moral nihilism, narrative ethics--and on specific types of theories--deontological theories, consequentialist theories, rights-based theories, virtue theories.

PHI 4800 Aesthetics 6A MW (3) AS PHI
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.

PHI 4905 Directed Study (1-4) AS PHI
PR: CI. Approval slip from instructor required. Individual study directed by a faculty member.

PHI 4930 Selected Topics (1-3) AS PHI
PR: CI. Approval slip from instructor required. Selected topics according to the needs of the senior students.

PHI 5135 Symbolic Logic (3) AS PHI
PR: PHI 2100 or CI. Study of topics such as the following: Metatheory of propositional and predicate logic, related metatheoretic results, alternative logic.

PHI 5225 Philosophy of Language (3) AS PHI
PR: Eight hours of philosophy, major in linguistics, or CI. An examination of semantically, syntactically, and functionally theories of language with special attention given to the problems of meaning, linguistic reference, syntactical form, the relations between scientific languages and ordinary linguistic usage. Seminar format.

PHI 5639 Social Issues in Biomedical Ethics (3) AS PHI
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.

PHI 5913 Research in Philosophy (1-4) AS PHI
PR: CI. Approval slip from instructor required. Individual research supervised by a faculty member.

PHI 5934 Selected Topics (1-3) AS PHI
PR: CI. Approval slip from instructor required. Selected topics according to the needs of the student.

PHM 3100 Social Philosophy 6A SS HP (3) AS PHI
An analysis of rival theories of social order and their philosophical foundations.

PHM 3400 Introduction to Philosophy of Law (3) AS PHI
A study of the fundamental concepts of law from a philosophical standpoint including crime, justice, punishment, free speech, insurrection, property, sex, family, war, suicide, and human rights in general.

PHM 4120 Major Black Thinkers MW (3) AS AFA
Survey of major themes and issues in African/African-American intellectual and thought with an emphasis on theories of nationalism. Works of individuals such as Malcolm X, Washington, W. E. B. DuBois, Marcus Garvey, Malcolm X, and Angela Davis are considered.

PHM 4422 Ancient and Medieval Political Philosophy MW (3) AS PHI
A survey of Political philosophy from 6 B.C. until 1600 A.D., including an examination of the ethical, metaphysical, and epistemological bases of these philosophies.

PHM 4321 Modern Political Philosophy 6A MW (3) AS PHI
A study of political philosophy from 1600 A.D. until 1900 A.D., including an examination of the ethical, metaphysical, and epistemological bases of these philosophies.

PHM 4340 Contemporary Political Philosophy 6A MW (3) AS PHI
A survey of political philosophy in the twentieth century, including an examination of the ethical, metaphysical and epistemological bases of these philosophies.

PHM 5125 Topics in Feminist Philosophy (3) AS PHI
A survey of recent feminist philosophical approaches to epistemology, aesthetics and political philosophy. May also be taken for credit in Women's Studies.

PHM 5126 Social Issues in Biomedical Ethics (3) AS PHI
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.

PHM 4786 Existentialism 6H AP (3) AS PHI
A study of the religious and atheistic existentialists and the bearing of their views on religion, ethics, metaphysics, and theory of knowledge.

PHP 4000 Plato 6A MW (3) AS PHI
The examination of Plato will include the dialogues Protagoras, Georgias, Meno, Republic.

PHP 4010 Aristotle 6A MW (3) AS PHI
Study of Aristotle's philosophy.

PHP 4410 Kant (3) AS PHI
Lecture and discussion of Kant's philosophy, especially the Critique of Pure Reason.

PHP 4740 The Rationalists 6A MW (3) AS PHI
A careful study of the metaphysics and epistemologies of Descartes, Spinoza, Leibniz, and Malebranche.

PHP 4745 The Empiricists 6A AS PHI
A careful study of the metaphysics and epistemologies of Locke, Berkeley, Hume, and Thomas Reid.

PHP 4784 Analytical Philosophy 6A AS PHI
A study of the method devoted to clarifying philosophical problems through analysis of the language in which these problems are stated.

PHP 4788 Philosophy of Marxism 6A MW (3) AS PHI
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.

PHT 5021 Introduction to the Profession (2) ME PHT
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.

PHT 5022 Profession Expression (2) ME PHT
Development of a learning unit(s) on physical therapy research and the investigation of patient care plans by application of theories of systems thinking, decision making, professional expression, responsibility and accountability (including legal/ethical concepts), culture, and argumentation with emphasis on the critical inquiry and education roles of the physical therapist. Restricted to majors.

PHT 5023 PT & Other Hlth C Providers (3) ME PHT
Development of a prevention, wellness, or health program, and the determination of the legal scope of practice of the physical therapist and other health care providers by application of theories of
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- **PHY 2049 General Physics NS (3) AS PHY**
  - PR: MAC 2282 or MAC 2312, PHY 2048, PHY 2048L. Must be taken concurrently with lab and, if dropped, then dropped simultaneously. May not receive credit for both the PHY2054 PHY 2054 and PHY 2049 courses. Second semester of general physics and laboratory for physics majors and engineering students.

- **PHY 2049L General Physics 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 PHY2054 PHY 2054L and PHY 2049L courses. Second semester of general physics and laboratory for physics majors and engineering students.

- **PHY 2053 General Physics NS (3) AS PHY**
  - PR: MAC 1140 and MAC 1141, 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 PHY2048 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) for science students.

- **PHY 2053L General Physics Laboratory (1) AS PHY**
  - PR: PHY 2053 and PHY2048 PHY 2048L. 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 general physics (mechanics, heat, wave motion, sound, electricity, magnetism, optics, modern physics) laboratory for science students.

- **PHY 2054 General Physics 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 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 I (3) AS PHY**
  - PR: PHY 2048, CP: 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; rotation about an axis; statics; and virtual work.

- **PHY 3323C Electricity and Magnetism I (4) AS PHY**
  - PR: PHY 2049, PHY 3221, MAC 2283 or MAC 2313. Electrostatic fields and potentials, electrically charged conductors, RC circuits, Fourier and finite element methods. Laboratory. First semester of sequence PHY 3323C, PHY 4324C.

- **PHY 3524C Optics (4) AS PHY**
  - PR: PHY 2049, CP: MAC 2283 or MAC 2313. Reflection, refraction, dispersion, interference, diffraction, polarization, and laboratory.

- **PHY 3822L Intermediate Laboratory (2) AS PHY**
  - PR: PHY 2049 or equivalent; CP: 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 4151 Computation Physics (3) AS PHY**

- **PHY 4151 Computation Physics (3) AS PHY**

- **PHY 4222 Mechanics II (3) AS PHY**
  - PR: PHY 3221; CP: MAP 2302. Continuation of PHY 3221. Coupled oscillators and non-linear systems; Lagrange's and Hamilton's equations; inertial tensor; general rotation of rigid bodies.

- **PHY 4324C Electricity and Magnetism II (4) AS PHY**
  - PR: PHY 3323C. Introduction to special relativity, magnetic fields and poten-
PHZ 4523 Statistical Physics  (3) AS PHY
PR: PHY 3101, senior status. Statistical approach to thermodynamics and kinetic theory and introduction to statistical mechanics.

PHZ 4904 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.

PHZ 4744C Introduction to Electronics and Test Instrumentation  (4) AS PHY
PR: General Physics or CI. Not for major credit. 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, digital multimeters, etc.)

PHZ 4823L Advanced Laboratory  (2) AS PHY
PR: PHY 3522L. 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.

PHZ 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 issues are to be determined by student/instructor agreement.

PHY 4930 Undergraduate Seminar in Physics  (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 the research 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 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 2101 Mathematical Analysis of Problems in Mechanics and Electricity  (2) AS PHY
PR: PHY 2053 and PHY 2054, MAC 2283 or MAC 2313. Designed for students who have not had the general physics sequence using calculus. Review of mechanics and electricity emphasizing problems which involve the use of calculus.

PHZ 2102 Problems in General Physics I  (1) AS PHY
CP: 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
CP: 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 5115 Methods of Theoretical Physics I  (3) AS PHY
PR: MAP 2302 or CI. Applications of mathematical techniques to classical and modern physics. Vector 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 5156C Computational Physics I  (3) AS PHY
PR: SES 5420 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 neurobiology, quantum magnetism, chaos, finance, computational fluid dynamics, molecular dynamics, and nuclear reactions. Credit cannot be applied towards a Physics major.

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 5305 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.
POS 3283 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 3453 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
This course 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 resource conservation and recovery. The course 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 3920 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, and the writings of leading public figures.

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. May also be taken for credit in Women's Studies.

POS 4694 Women and Law II 6A MW (3) AS WST
PR: POS 4693 or CI. Legal position of women in American society and remedies available to challenge current laws and practices, with specific emphasis on employment and education issues as they relate to both women and men. May also be taken for credit in Women's Studies.

POS 4905 Independent Study (1-3) AS POL
PR: 3.0 average in Political Science and CI. SU 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 Selected Topics in Political Theory (3) AS POL
Selected topics or thinkers in political theory.

POS 5155 Issues in Urban Government and Politics (3) AS POL
Selected topics and issues in Urban Government and politics.

POS 5159 Urban Policy Analysis (3) AS PAD
GS. Examination of the organizational and administrative aspects of planning, program development, and evaluation at the local level by state, regional, and other agencies.

POT 3003 Introduction to Political Theory (3) AS POL
Examines various kinds of theory used in political science for understanding political systems, normative theories, 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
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.

POT 4651 The Politics of Identity, Difference and Inequality MW (3) AS POL
PR: POT 3003. An analysis of how relationships of social identity and difference become the basis of social, political and economic inequality in modern society. It incorporates both contemporary and classical discussions of inequality.

POT 4936 Selected Topics in Political Theory (3) AS POL
Selected topics or thinkers in political theory.

POT 5626 Issues in Political Philosophy and Law (3) AS POL
PR: Graduate or senior standing and CI. Selected topics in political philosophy and law.

PPE 4004 Personality (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Methods and findings of personality theories and an evaluation of constitutional, biosocial, and psychological determinants of personality.

PSB 4013C Physiological Psychology (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Gross neural and physiological components of behavior. Structure and function of the central nervous system and theory of brain functions.

PST 4012 Psychology in America (3) AS PSY
A broad survey of psychology for both majors and non-majors with special emphasis on the more applied areas of psychology (e.g., social psychology, abnormal psychology, personality, and developmental psychology).

PSY 3022 Contemporary Problems in Psychology SS (3) AS PSY
The content of this course varies depending on the needs and interest of students and faculty. Offerings include in-depth coverage of specialized aspects of psychology applied to contemporary problems not studied in general introductory courses.

PSY 3044 Psychology II SS (3) AS PSY
PR: PSY 2012, psychology major or CI. Designed as an in-depth examination of the basic principles and concepts of psychological science. Extensive coverage will be given to the areas of learning, perception, physiological psychology, and cognition.

PSY 4025 Research Methods in Psychology (4) AS PSY
PR: PSY 2012 with a grade of C or better, or CI. This course considers the logic of experimental design, concept of control and the analysis of experimentally obtained data. The laboratory section provides experience applying the concepts discussed in lecture. Two lectures plus two-hour lab. May be taken concurrently with PSY 3044.

PSY 4205 Experimental Design and Analysis (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Detailed coverage of those research designs and statistical techniques having the greatest utility for research problems in psychology. Emphasis on topics from analysis of variance.

PSY 4604 History and Systems of Psychology (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. The historical roots of modern psychological theories, investigation of the various schools of psychology such as behaviorism, Gestalt psychology, psychoanalysis, and phenomenological psychology.
PSY 4913 Directed Study (1-3) AS PSY
PR: CI. A maximum of 3 credits of either PSY 4913 or PSY 4970 may count toward the major. The student plans and conducts an individual research project or program of directed readings under the supervision of a faculty member.

PSY 4931 Selective Topics: Seminar (3) AS PSY
PR: Upper-level standing, psychology major and CI. Graduate-type seminar designed to provide the advanced undergraduate student with an in-depth understanding of a selected sub-area within psychology.

PSY 4932 Honors Seminar (3) AS PSY
PR: Admission to honors program in psychology and CI. May not count for major credit. The student, under supervision of a faculty member, will formalize, conduct, analyze, and report in writing a research project in psychology.

PSY 4933 Advanced Topics in Applied Behavior Analysis (4) AS PSY
PR: EXP 4404 and CLP 4414. Restricted to Psychology majors admitted to the Concentration in Applied Behavioral Analysis. 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 4970 Honors Thesis (1-3) AS PSY
PR: Admission to honors program in psychology and CI. A maximum of 3 credits of either PSY 4913 or PSY 4970 may count toward the major. The student under supervision of a faculty member will formalize, conduct, analyze, and report in writing a research project in psychology.

PUR 4801 Advanced Public Relations (3) AS COM
PR: MMC 4420, PUR 4100, and PUR 4401. As final course in Public Relations sequence, it involves intensive study of counseling and problem-solving techniques used in professional practice. Analysis of case studies and preparation of complete Public Relations program. Extensive reading in the literature of contemporary practice.

QMB 2100 Business And Economic Statistics I 6A QM (3) BA QMB
PR: MAC 2230 or MAC 2233. Data description; exploratory data analysis; introduction to probability; binomial and normal distributions; sampling distributions; estimation with confidence intervals; tests of hypotheses; chart controls for quality improvement.

QMB 3200 Business And Economic Statistics II (3) BA QMB
PR: MAC 2230 or MAC 2233, QMB 2100. Simple linear regression and correlation; multiple regression and model building; forecasting models; analysis of variance; chi-square tests; nonparametric methods.

RCS 3030 Rehabilitation Counseling Issues in Alcoholism and Other Addictions (3) AS REH

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 5050 Medical Aspects of Disability (3) AS REH
PR: RCS 5700 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 5404 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.

RCS 5406 Human Growth and Development (3) AS REH
PR: RCS 5700, RCS 5404, Majors only. Human development theory as applied in psychotherapy and case management rehabilitation, mental health, and addiction settings.

RCS 5450 Substance Abuse I (3) AS REH

RCS 5500 Legal, Ethical, and 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 5802 Practicum I (1) AS REH
PR: Majors Only. Must be taken concurrently with RCS 5406. S/U. Supervised experience and practice in counseling in various rehabilitation and mental health settings for a minimum of 120 hours.

RCS 5905 Directed Studies (1-4) AS REH
PR: CI. Supervised rehabilitation studies under the direction of a faculty member.

REA 1105 Advanced Reading (3) AS ENG
Designed to help students develop maximum reading efficiency. The course includes extensive instruction and laboratory practice in the improvement of adequate reading, vocabulary, and comprehension skills. An independent study approach is also available for students who prefer to assume responsibility for their own progress. Will not be counted toward the English major.

REA 1605 Learning Strategies Within Academic Disciplines (2) US RLS
To provide within any academic discipline the necessary learning strategies needed for success related to academic coursework. Practice of learning strategies will be within the framework of the student’s coursework, providing direct transfer to academic area material. Will not be counted toward the English major.

REA 2505 Vocabulary (3) US RLS
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 2930 Selected Topics: Learning Strategies (1-4) US RLS
Topics will vary to meet the needs of students.
REL 4310 Early Literacy Learning (3) ED EDE
Pre-Admission to College of Education. Prepares preservice teachers to understanding the foundations of literacy and the learning principles and instructional strategies necessary to provide literacy instruction to emergent, novice, and transitional readers and writers leading disabilities.

RED 4511 Literacy in the Intermediate and Middle Grades (3) ED EDR
PR: RED 4310. Prepares preservice teachers to facilitate literacy learning for students who are beyond the primary grades. Students will develop an understanding of instructional strategies and materials appropriate for remedial, multicultural, and mainstream students ways to promote literacy development across the curriculum, and theories of reading disabilities.

REE 3043 Real Estate Decision Making (3) BA FIN
PR: FIN 3403. Acquaints students with the range of knowledge required to engage in real estate decision-making in the United States. Integrates the institutional framework with which decisions are made, the elements of financial analysis, deal structuring and marketing, and the pricing, financing and allocation of real property in local, regional and national real estate markets.

REE 4303 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, and the role of tax and will be stressed 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 (3) AS REL

REL 2300 Introduction to World Religions 6A HP (4) AS REL
A cross-cultural exploration of the major religions of the world through lectures, films, and the reading of key religious texts. Religions covered include Judaism, Christianity, Islam, Taoism, Confucianism, Hinduism, and Buddhism.

REL 2306 Contemporary World Religions HP (4) AS REL
This course will explore the unity 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 East and Mediterranean.

REL 3003 Introduction to Religion (3) AS REL
This course explores the phenomenon of religion to answer the question: Religion, what is it? Religions covered include Judaism, Christianity, and Buddhism.

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 Judaism, Christianity, and Zen Buddhism.

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 religious institutions, the religious results of non-Protestant immigration.

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 various indigenous and contemporary witchcraft, 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 primary and secondary 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 contemporary women's movement.

REL 3148 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 3155 Life After Death 6A MW (3) AS REL
An exploration of ideas about life after death and its relations to this life in Judaism, Christianity, Islam, Hinduism, and Buddhism.

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 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 (3) AS REL
This course is framed within the academic study of religion, and it does not concern itself with contemporary political difference in the Middle East. It treats as Islam the normative statements of the Qu'am and related traditions, and as Judaism the authoritative statements concerning the Torah, oral and written.

REL 3310 World Religions (3) AS REL
A comparison of the ideas, the literature and institutions of the major religions of the world including Judaism, Christianity, Islam from the Near East and Hinduism, Taoism, Confucianism, and Buddhism from the Far East. General comparison of Western and Eastern beliefs.

REL 3330 The Religions of India 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 Baha'i. Readings from classical texts and modern literature.

REL 3362 Introduction to Islam 6A 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 19th and 20th century Islamic resurgence. Issues of diversity, gender, and social values will be stressed.

REL 3375 Issues in Caribbean Religions MW (3) AS REL
This course concentrates on 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
Introduction to and survey of Native American Religions. A variety of multiplicity of perspectives, including anthropological, historical, social psychological, sociological, and philosophical.

REL 3420 Contemporary Religious Thought (3) AS REL
An examination of the central ideas of recent religious thinkers; such as Gandhi, Martin Luther King, Jr., Elie Wiesel, Thich Nhat Hanh, Dorothy Day, Dorothee 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 3501 History of Christianity 6A HP (4) AS REL
Historical development of Christianity, its ideas and institutions, from the first century to the rise of religious modernism in the 19th century.

REL 3501 Roman Catholicism 6A MW (3) AS REL
An examination of the history, doctrine, and ethics of the Roman Catholic Church.

REL 3600 Introduction to Judaism SS 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 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, Talmuds, and Midrash.

REL 3611 History of Judaism  (3) 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 background 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 3900 Directed Readings  (1-4) AS REL
PR: Individual guidance in concentrated reading on a selected topic.

REL 3936 Selected Topics  (1-4) AS REL
Course contents depend on students' needs.

REL 4113 The Hero and Religion 6A MW (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 4117 Comparative Religious Ethics 6A MW (4) AS REL
A comparative study of religious ethics emphasizing how 20th century social activists, such as Ghandi and M. L. King Jr. and eco-feminists such as Rosemary Ruether and Joanna Macy, have drawn upon and transformed traditional religious stories and spiritual practices in order to create a cross-cultural and inter-religious ethic for a multi-cultural world.

REL 4119 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 4221 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 biblical traditions 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 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 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 4526 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 reasoning work in a religious definition of the social order; the dialectical arguments.

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 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 (2) AS REL
<cours
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 religion.

REL 4936 Selected Topics  (1-4) AS REL
PR: Junior standing. Individual investigations with faculty supervision.

REL 4939 The Development of Religious Studies  (3) 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 business 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 relationship to the socio-economic environment.

RMI 4115 Life, Health, And Disability 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 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 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 4230 Insurance Law and Regula tion  (3) BA FIN
PR: RMI 3011. Course dealing with regulation of personal and business property risks, and coverage that can be used in dealing with these risks. Considers the legal and regulatory frameworks of insurance. Topics include the role of the courts in insurance, and the concepts of insurance law, insurance regulations, and administrative agencies.

RMI 4239 Financial Markets  (3) BA FIN
PR: RMI 3011. Course dealing with the role of financial markets in the operation of the insurance industry, including the markets for insurance products, the role of the Federal Reserve System and other regulatory bodies, and the impact of financial market trends on the insurance industry.

RMI 4240 Life Insurance  (3) BA FIN
PR: RMI 3011. Course dealing with the role of life insurance in the operation of the insurance industry, including the role of life insurance in retirement planning, the role of life insurance in estate planning, and the role of life insurance in wealth management.

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 communications.

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 3330 Telecommunications Sequence Majors  (3) AS COM
PR: MMC 2100 and MMC 3602. Methods in gathering, writing, and editing newscasts for radio and television.

RTV 3861 Radio Practicum  (1) AS COM
PR: seniors and juniors only. Experience outside the classroom where the student works for academic credit under the supervision of a
RUS 4471 Advanced Overseas Study   (1-6) AS WLE
RUS 4403 Advanced Russian Conversation & Composition II
RUS 4402 Advanced Russian Conversation & Composition I
RUS 3470 Overseas Study   (1-6) AS WLE
RUS 4905 Directed Study   (1-3) AS WLE
RUT 3110 Russian Classics in English   6A MW LW (3) AS WLE
RUT 3111 Twentieth-Century Russian Literature in English   6A MW LW (3) AS WLE
RUT 4905 Directed Study   (1-3) AS WLE
SCE 4305 Communication Skills in the Science Classroom   (3) ED EDN
SCE 4330 Teaching Methods in the Secondary School-Sciences   (3) ED EDN
SCE 5937 Selected Topics in Science Education   (1-4) ED EDN
SDS 4040 Introduction to Student Personnel Work in Higher Education   (2) ED EDG
SLS 1101 The University Experience   (2) ED EDG
SLS 2261 Leadership Fundamentals   (3) US STL
SLS 3140 Survey of Leadership Readings   (3) US STL
SLS 3948 Community Leadership Practicum   (3) US STL
SLS 4010 Theories of Leadership   (3) US STL
SLS 4015 Images of Leadership in Print and Film   (3) US STL

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**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 student works for academic credit under the supervision of a professional practitioner. Periodic written and oral reports to the faculty member coordinating the study.

**RUS 1120L Beginning Russian Laboratory   (1) AS WLE**
CP: RUS 1120L. The first course in the study of elementary Russian. Emphasis on the development of basic skills in comprehension, speaking and reading.

**RUS 2200 Russian III   (4) AS WLE**
PR: First year Russian or equivalent. Review and development of basic skills in comprehension and reading.

**RUS 2201 Russian IV   (4) AS WLE**
PR: RUS 2200 or equivalent. Review and development of basic skills in comprehension, speaking 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 author, movement or theme.

**RUS 4905 Directed Study   (1-3) AS WLE**
Developmental approved. 

**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, Turgeniev, 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, Dlesha, Babel, Zamyatin, Bulgakov, Pasternak, and Solzhenitsyn. Elective for all students in all departments.

**SCE 4326 Science, Technology, Society Interaction   6A MW (4) ED EDN**
Achieve a 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 4305 Communication Skills in the Science Classroom   (3) ED EDN**
Reading and communication skills important in understanding scientific 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 of teaching science in the elementary school.

**SCE 4320 Teaching Methods in Middle Grade Science   (3) ED EDN**
PR: Completion of 26 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 4936 Senior Seminar in Science Education   (1-2) ED EDN**
PR: Senior standing; CP: SCE 4940. Synthesis of teacher candidate’s courses in complete college program.

**SCE 4940 Internship: Science Education   (1-12) ED EDN**
CP: SCE 4936. One full semester of internship in a public or private school.

**SCE 5937 Selected Topics in Science Education   (1-4) ED EDN**

**SDS 4040 Introduction to Student Personnel Work in Higher Education   (2) ED EDG**
PR: DPR. Study of student personnel services in institutions of higher education. Identification of the needs of students and of the ways to respond to meet these needs. Survey of service units on a campus in terms of organization, funding, etc.

**SLS 1101 The University Experience   (2) ED EDG**
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 2261 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 STL**
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 making an effective decision. Available to lower level majors or non-majors.

**SLS 3140 Survey of Leadership Readings   (3) US STL**
PR: SLS 2261. Survey of historical and contemporary writings on leadership skills and practices. Examines the contextual manner in which the leader functions.

**SLS 3948 Community Leadership Practicum   (3) US STL**
PR: SLS 2261, PR: SLS 3140. 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 4010 Theories of Leadership   (3) US STL**
PR: SLS 2261, PR: SLS 3140. Course focuses on historical and modern views of leadership. Designed to assist students in establishing a general understanding of leadership theories, styles as well as the effects of various leadership theories in specific settings.

**SLS 4015 Images of Leadership in Print and Film   (3) US STL**
PR: SLS 2261, PR: SLS 3140. This course examines the historical development of leadership theory through contemporary times.
SOW 4233 Social Welfare: Policy & Program (3) US
PR: SLS 2261 and SLS 3140. Participants will delve into the nature of organizational dynamics, they will utilize concepts, generalizations, theories, and frameworks of reference to analyze organizations and leadership to understand and improve their function.

SLS 4129 Ethics and Power in Leadership (3) US
PR: SLS 2261, PR: SLS 3140. 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 ethical and psychological orientation.

SOP 3742 Psychology of Women SS (3) AS WST
An examination of theories of female personality in historical perspective. Current research on sex differences, socialization, sexuality, psychology of reproduction. Emerging roles of women as related to social change and developmental tasks of the life cycle.

SOP 4004 Social Psychology (3) AS PSY
PR: PSY 3213 with a grade of C or better. Survey of methods, empirical findings, and theoretical interrelations in the study of an individual's behavior as it is affected by others.

SOP 4514 The Holocaust, Social Prejudice, and Morality (3) AS PSY
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 and rescuers.

SOP 4522 Senior Seminar: Multicultural America (3) AS SOK
PR: SOW 3203, SOW 3102, CP: SOW 3101, SOW 4341. The course focuses on the students' understanding of multicultural and intergenerational issues.

SOW 5930C Selected Topics in Social Work (1-4) AS SOK
Variable title courses to expand on the four sequence areas in the study of social work content areas. Restricted to Social Work majors; others by School permission.

SOW 4543 Multi-Methods of Social Work Practice II: Macro-Social Intervention (3) AS SOK
PR: All provisional major courses, SOW 3101, SOW 4522, SOW 4341; must be taken as PR. CP: SOW 4301, and SOW 3102. Restricted to full Social Work majors, others by School permission. Second practice course emphasizing intervention at the community and organizational level. Builds upon theoretical and practical content of SOW 4341. Course includes both didactic and experiential learning components.

SOW 4510L Field Placement (6) AS SOK
PR: SOW 3302, SOW 3203, SOW 3101, SOW 4341, SOW 3102, CP: SOW 4233, CO: SOW 4510L, SOW 4343, SOW 4522. Restricted to full Social Work majors in senior year. Integrates content and theory from core classes with practice experiences of students having in field placement.

SOW 4510L Field Placement (6) AS SOK
PR: SOW 3302, SOW 3203, SOW 3101, SOW 4341, SOW 3102, SOW 4522. CP: SOW 4233, SOW 4343, CO: SOW 4510L SU 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.

SPA 3101 Introduction to Speech Science (3) AS CSD
PR: Junior standing, SPA 3030, SPA 3112 or DPR. Concentrated study of the speech process, its environmental and physiological basis, its psychological aspects, and its biological basis. Focuses on the students' understanding of the normal development of language, listening, and its application to leadership skills.

SPA 3203 Introduction to Hearing Science (3) AS CSD
PR: Junior standing, SPA 3101, SPA 3312, SPA 3030, Concentrated study of the acoustic, physiological and perceptual aspects of sound as related to normal and pathological speech communication. Introduction to the speech science approach and measurement procedures.

SPA 3312 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 Hearing (3) AS CSD
PR: SPA 3303 and SPA 3112. Introduction to the etiology, pathology, and management of disorders of the outer ear, middle ear, inner ear, retrocochlear, and central auditory systems.
### SPA 3612C Basic American Sign Language (4) AS CSD
- PR: Admission to ISI Program. CP: SPA 3653L. This course is restricted to majors only. An introduction to American Sign Language (ASL) idioms. Provides a greater opportunity for skill development in ASL structure and idiomatic usage. One hour of laboratory course work is included.

### SPA 3653L Overview of Language Learning in Deaf Children Lab (1) AS CSD
- PR: Admission to ISI Program. CP: 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 3660L Introduction to Interpreting in Public Schools Lab (1) AS CSD
- PR: Admission to ISI Program. CP: SPA 3660. The lab assists students in assessing and improving their interpreting and transliterating skills through videotapes of simulated interpreting assignments.

### SPA 3673 Introduction to Auditory Functions (3) AS CSD
- PR: Admission to ISI Program. This course is restricted to majors. An overview of hearing science and speech science relating to the educational environment. This course orients the student to the variables 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 3004 and SPA 3310. Observation and participation in speech-language pathology and audiology practicum in the University clinical laboratory. Ethical issues, multiculturals 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. Presentation of major 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 4220 Listening 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 4331 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 4335 Sign Language Codes (3) AS CSD
- PR: DPR. A review of the sign systems (SEE I, SEE II, I.O.V.E., 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 4613C Intermediate American Sign Language (4) AS CSD
- PR: SPA 3612D, DPR. A continuation of the basic course which expands the student's signing skills and introduces American Sign Language (ASL) idioms. Provides a greater opportunity for skill development in ASL structure and idiomatic usage. One hour of laboratory course work is included.

### SPA 4614C Advanced American Sign Language (4) AS CSD
- PR: SPA 4613C, DPR. 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 4615L American Sign Language Laboratory (1) AS CSD
- A laboratory course designed to offer students added practice with the material presented in the ASL course work through video and audio tapes.

### SPA 4617 Structure of Sign Language (3) AS CSD
- PR: SPA 4363 and SPA 4615L. A comprehensive introduction to the linguistic structure of American Sign Language (ASL). Topics include phonetics and phonemes; phonological processes; the identification, structure and distribution of morphemes; principles of syntactic augmentation; detailed examination of the major syntactic structures of ASL, and the place of phonology, morphology, and syntax in terms of the larger context of grammar.

### SPA 4662 Interpreting in Public Schools I (3) AS CSD
- PR: Admission to ISI Program. CP: SPA 4366L. The course is restricted to majors only. This course provides advanced assessment of interpreting skills and development of communication modes and languages used by deaf children. Includes interpreting practices and understanding teaching methods.

### SPA 4662L Interpreting in Public Schools II Lab (1) AS CSD
- PR: Admission to ISI Program. CP: SPA 4366L. This course is restricted to majors only. This course provides practical application of interpreting the subjects taught in the public school classes. Discussion includes class goals, instructional style, interpreter roles and ethics, language or mode choice, and an analysis of the classroom for accessibility and appropriateness for interpreting.

### SPA 4663 Interpreting in Public Schools II (3) AS CSD
- PR: SPA 4366, SPA 4366L. This course is restricted to majors only. This course provides advanced techniques for interpreting instructional/non-instructional activities and the development of communication modes and languages used by deaf children. Includes interpreting practices and understanding teaching methods.

### SPA 4663L Interpreting in Public Schools II Lab (1) AS CSD
- CP: SPA 4662. This course is restricted to majors only. This course provides advanced assessment of interpreting skills and interpreting integration of targeted school classes and activities. Selection criteria for using a particular sign system, mode, or language will be assessed and discussed in individualized meetings.

### SPA 4665 Practicum: Interpreting in Schools (1-6) AS CSD
- This course is restricted to majors. This 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 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 5132 Audiology Instrumentation (2) AS CSD
- PR: DPR. Calibration, usage, and specific applications of specialized instruments available for dealing with the identification and measurement of hearing disorders.

### SPA 5150 Advanced Speech Science (3) AS CSD
- PR: SPA 3011 or equiv., SPA 5150L, and DPR. Advanced study of the acoustics, production, and perception of normal and disordered speech.

### SPA 5150L Speech Science Instrumentation (2) AS CSD
- PR: DPR or SPA 3011 or equivalent. This course offers experience in the use of speech recording, monitoring and analyzing equipment for the evaluation of normal and disordered voice and speech characteristics.
SPA 5509 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 (2) 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: Junior standing or CI. The study of source, message, and receiver variables in human communication; communication settings; descriptive and predictive models of communication; communication as a process.

SPC 3230 Rhetorical Theory HP (3) AS SPE
This course surveys the various traditions and historical evolution of major approaches, theories, and methodologies to the study of rhetoric from Plato to the contemporary theorists.

SPC 3301 Interpersonal Communication SS (3) AS SPE
A study of interpersonal communication in informally structured settings with emphasis on the understanding, description, and analysis of human communication.

SPC 3425 Group Communication (3) AS SPE
PR: Junior standing 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 3212. Study and application of principles of communication in speaking extemporaneously and from manuscript. The course includes study of selected public addresses as aids to increased understanding of speaking skills.

SPC 3621 Rhetoric of the Sixties HP (3) AS SPE
Survey of the rhetoric associated with the civil rights movement, the Great Society, the anti-Vietnam War movement, the counterculture, the black power movement, and the women's movement.

SPC 3932 Topics in Popular Forms of Public Communication (3) AS SPE
PR: Junior standing or CI. Analysis of public communication with emphasis on various presentational forms.

SPC 3680 Rhetorical Analysis (3) AS SPE
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 racial and ethnic (e.g., African American, Latino American, Asian American), social class, age and generation, religious (e.g., Jewish) and gender.

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: Junior/Senior standing or 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.

SPC 4510 Relationships on Film (3) AS SPE
Examination of the ways in which cinema inscribes conceptions and meanings of romance, love, intimacy and sexuality. Focus on systems of interpretation fostered by cinema representations of intimacy, sexuality, emotional, subjectivity, and betrayal.

SPC 4431 Family Communication (3) AS SPE
Examines the processes and functions of communication in family relationships. Examination of scholarly and popular literature on family structure, family systems, family development, and family stories. Analysis of family in fiction and cinema.

SPC 4632 Rhetoric and Social Change 6A MW (3) AS SPE
PR: SPC 3230 or SPC 3681. This course examines how social change is symbolized and motivated in the rhetorics of institutions, campaigns, social movements and individuals.

SPC 4683 Rhetorical Analysis of Mass Media (3) AS SPE
PR: SPC 3230 or SPC 3681; Open to non-majors with CI. An introduction to the criticism of media forms and effects. Contemporary perspectives of the aesthetic and persuasive dimensions of mass media are examined. Students will engage in critical study of media artifacts.

SPC 4714 Communication, Culture and Community MW (3) AS SPE
Examines the relationships among culture, communication, institutions, and public and private life. Students explore the possibilities and problems of contemporary forms of community through service in a volunteer organization.

SPC 4900 Directed Readings (1-3) AS SPE
PR: Senior standing, minimum GPA 2.5, 15 hours of core requirements and 9 elective hours completed, and CI. Maximum 6 hours.

SPC 4903 Honors Readings (3) AS SPE
PR: Admission to Communication Honors Program. Focused readings directed toward preparation of a proposal for an undergraduate honors thesis.

SPC 4905 Undergraduate Research (1-3) AS SPE
PR: Senior standing, minimum GPA 2.5, 15 hours of core requirements and 9 elective hours completed, and CI. Maximum 6 hours. Individual investigations with faculty supervision.

SPC 4930 Selected Topics (1-3) AS SPE
PR: Senior standing, minimum GPA 2.5, 15 hours of core requirements and 9 elective hours completed, and CI. Variable topics.

SPC 4932 Senior Seminar in Communication (3) AS SPE
PR: Senior standing, minimum GPA 3.0, 15 hours of core requirements and 9 elective hours completed, and CI. Exploration of selected topics of current significance to the several streams of communication through group discussion and research.

SPC 4970 Honors Thesis (3) AS SPE
PR: Admission to Communication Honors Program. Involves individual research and preparation of an undergraduate honors thesis.

SPC 4978 Topics in Rhetorical Analysis (3) AS SPE
Introduces a variety of critical perspectives applied to rhetoric in specialized contexts. Topics vary depending upon interest of students and faculty.

SPC 5930 Topics in Discourse (3) AS SPE
Variable topics course.

SPN 1120 Beginning Spanish I (4) AS WLE
CP: SPN 1120L. Not open to native or near-native speakers of Spanish. Development of basic skills in listening and reading comprehension, speaking and writing of Spanish.

SPN 1120L Beginning Spanish I Laboratory (1) AS WLE
CP: SPN 1120. 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 1121 Beginning Spanish II (4) AS WLE
PR: SPN 1120 or equivalent. CP: SPN 1121L. 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 1121L Beginning Spanish II Laboratory (1) AS WLE
CP: 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 Advanced 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 2201 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 1121. Not open to native or near-native speakers of Spanish. For development of basic conversational skills.

SPN 2241 Conversation II (3) AS WLE
PR: SPN 2240 or equivalent. Not open to native or near-native speakers of Spanish. To improve fluency in spoken Spanish.

SPN 2270 Overseas Study (1-6) AS WLE
PR: SPN 1121. Prior departmental approval and early registration are required. An intensive study-travel program in a Spanish-speaking country.

SPN 3300 Composition (3) AS WLE
PR: SPN 2200-SPN 2201. Not open to native or near-native speakers of Spanish. A study of syntax, grammar and writing.

SPN 3340 Advanced Spanish for Native Speakers I (3) AS WLE
PR: Native and near-native oral/aural proficiency. May not count as Spanish major elective. 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 grammatical problems affecting such speakers. Texts and discussions in Spanish. This is primarily a discussion type of course, open to all majors and minors.

SPN 3341 Advanced Spanish for Native Speakers II (3) AS WLE
PR: SPN 3340. May not count as Spanish major elective. Continuation of SPN 3340 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 those aspects of written expression such as style and syntax which are problematic for such speakers. Texts and discussions in Spanish. This is primarily a discussion course, open to all majors and minors.

SPN 3440 Spanish for Business (3) AS WLE
PR: SPN 2201 or equivalent. An introduction to the Spanish language as used in undertaking ordinary business transactions.

SPN 3441 Advanced Spanish for Business Writing (3) AS WLE
PR: SPN 3440 or equivalent. Open to Spanish and Business majors and minors. Continuation of SPN 3440. Advanced business communication in Spanish through discussion, reading, and writing of representative texts from Spain, Mexico, and the Spanish speaking Caribbean. Development on business forms and composition of proposals, reports, records, and the language of advertisement. Texts and discussions in Spanish. This is a discussion course, open to Spanish and Business majors and minors.

SPN 3500 Spanish Civilization (3) AS WLE
PR: SPN 1121. The culture and civilization of Spain.

SPN 3520 Spanish American Civilization (3) AS WLE
Readings and discussions on the culture and civilization of Spanish speaking countries, designed to offer additional practice using various instructional technologies and media.

SPN 4301 Expository Writing (3) AS WLE
PR: SPN 3300. Not open to native or near-native speakers of Spanish. Practical training in contemporary Spanish structure, usage and stylistic devices.

SPN 4410 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 standard Spanish.

SPN 4470 Advanced Overseas Study (1-6) AS WLE

SPN 4700 Spanish Linguistics (3) AS WLE
PR: LIN 3010 or equivalent (may be taken concurrently with CI) and SPN 2201 or equivalent. An introduction to Hispanic linguistics: Phonology, morphology, syntax, and lexicography.

SPN 5525 Modern Spanish American Civilization (3) AS WLE
PR: SPN 3520 or equivalent or graduate standing. Advanced readings and discussions dealing with Spanish American civilization and culture, including a study of social, artistic and political trends. Text and discussion in Spanish.

SPN 5567 Modern Spanish Civilization (3) AS WLE
PR: SPN 3500 or equivalent or graduate standing. Advanced readings and discussions dealing with contemporary Spanish civilization and culture, including a study of recent social, artistic and political trends. Texts and discussions in Spanish.

SP 2524 Women Writers of Latin America AF (3) AS WLE
Literature of Latin-American women (in translation). Topics related to race and ethnicity, values and ethics, social, economic, and political issues. Readings will include oral histories, interviews, diaries and memoirs, poetry, short stories, and novels. (May also be taken in Women's Studies.)

SPW 3030 Introduction to Hispanic Literature (3) AS WLE
PR: SPN 2201 or equivalent. Prose fiction, drama, poetry, and essay; techniques, and materials that achieve concrete outcomes. Theoretical foundations of social studies are also examined.

SPW 4100 Survey of Spanish Literature I (3) AS WLE
PR: SPW 3030 or equivalent. A study of Spanish literature from its origins through the 17th century.

SPW 4101 Survey of Spanish Literature II (3) AS WLE
PR: SPW 3030 or equivalent. A study of the later periods of Spanish literature.

SPW 4131 Survey of Spanish-American Literature (3) AS WLE
PR: SPW 3030 or equivalent. An introduction to the study of Spanish-American literature from the Modernism period to the present. Emphasis on modern writers since Dario.

SPW 4900 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 5135 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 gaucha theme and contemporary prose fiction.

SPW 5388 Golden Age Poetry and Drama (3) AS WLE
PR: SPW 4100. Lopez de Vega, Alarcon, Tirso, Calderon, and others.

SPW 5405 Medieval Literature (3) AS WLE
PR: SPW 4100 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 5725 Generation of 1898 (3) AS WLE
PR: SPW 4101. The major figures of the period and their main followers.

SPW 5726 Vanguard Literature 1918 and 1936 (3) AS WLE

SPW 5934 Selected Topics (1) AS WLE

SSE 4313 Teaching Elementary Grades Social Studies (3) ED EDE
PR: Admission to College of Education or CI. This course is designed to develop techniques and non-major taught by social studies teachers that are effective in motivating elementary school aged youth to acquire the information, skills, and modes of reasoning unique to the social sciences. Students are expected to plan and present instructional plan(s) demonstrating use of various instructional methods, techniques, and materials that achieve concrete outcomes. Theoretical foundations of social studies are also examined.
STA 4333 Teaching Middle Grades Social Science (3) ED EDW
This course is designed to study techniques and strategies employed by social sciences teachers that are effective in motivating teenage youth to acquire the information, skills, and modes 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 also studied. Fieldwork in a high school is required.

STA 4334 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.

STA 4380 Global And Multicultural Perspectives in Education MW (3) ED EDW
PR: EDG 3004 and EDG 4620, or DPR. Examination of the major issues surrounding global and multicultural perspectives in education. Available to non-education majors.

STA 4543 Communication Skills in the Social Sciences (2) EDEWD
PR: CC. S/U only. 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 4670 Economics USA: Principles of Economics for Teachers (3) ED EDW
S/U only. A television course focusing on content and teaching methodology related to micro/macro economic principles.

STA 4936 Senior Seminar in Social Science Education (2) ED EDW
PR: Senior standing; CP: SSE 4940. Synthesis of teacher candidate’s courses and preparation for the professional interview and application process.

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

STA 5644 Economic Decision-Making for Teachers (3) ED EDW
PR: Admission to College of Education or DPR. Provides teachers (K-12) with content related to the operation of businesses in a market economy. Teachers analyze economic/business concepts from the perspective of individuals currently operating businesses in the Tampa Bay area. Focus of the instruction is on the application of content to K-12 education.

STA 1022 Basic Statistics 6A QM (3) 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. Basic philosophy of statistical thinking. Acquisition of data. Techniques for organizing and presenting statistical data. Sample mean, variance and standard deviation. Statistical decisions—estimation and hypothesis testing. Design of experiments, linear association and prediction. Statistical software: MINITAB.

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; probability estimation, confidence limits, hypothesis testing, correlation analysis 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 non-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 Introduction to 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 Computational Statistics I (3) AS MTH
PR: STA 4321 and CGS 3422, or CI. Statistical analysis of data by means of statistics package programs. Regression, ANOVA, discriminant analysis, and analysis of categorical data. Emphasis is on integration between statistical theory, numerical methods, and analysis of real life data.

STA 5228 Sampling Techniques (3) AS MTH

STA 5326 Mathematical Statistics (3) AS MTH
PR: STA 5446. Sample distribution theory, point & interval estimation, optimality theory, statistical decision theory, and hypothesis testing.

STA 5446 Prob(Ability) Theory I (3) AS MTH
PR: STA 4442 and 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 3010 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 3115 Contemporary (3) AS SOC
PR: SYA 3101 and 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 3202 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 the characteristics of social service agencies.

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 4910 Individual Research (1-3) AS SOC
PR: Four courses in sociology, including SYA 3300, upper level standing, at least 3.0 overall 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 4940 Topics in Sociology (3) AS SOC
Selected specialized topics in Sociology. Topics such as AIDS in society, problems in drug use, sociology of childhood, public life, sociobiology. 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 up to 9 credits.

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 theoretical methods to a selected topic of relevance in today’s society. Topic changes by instructor.

SYA 4947 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 10 hours of volunteer work per week, and a weekly seminar on applying sociological skills and methods in the placement setting.
SYO 4341 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 roles played by "western" societies in creating and sustaining the conditions under which peasants live.

SYO 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.

SYO 4410 Urban Sociology (3) AS SOC
The social structure of the community in modern industrial societies. Analysis of community change.

SYO 4880 Gender and Society (3) AS SOC
Historical and current issues surrounding gender in America. Emphasis on exploring the causes, meaning, and consequences of gender differences, interpersonal relationships, and institutional participation.

SYG 2000 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 minor.

SYO 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 3235 Latina Lives (3) AS SOC
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 what they do for their members as well as social policies related to families.

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 3790 Social Organization (3) AS SOC
PR: SYG 2000 or CI. Social organization in the broadest sense, including institutions and associations, as well as variations in role and status.

SYO 3420 Poverty, Inequality, and Stratification (3) AS SOC
Introduction to one of the most common features of modern society, social inequality. A survey of perspectives to explain the causes of inequality and reasons for its persistence.

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 4370 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.

SYP 3000 Social Psychology SS (3) AS SOC
An exploration of the social forces that help shape individual perceptions, behaviors, and personality. The study of ways individuals develop identity and self-worth.

SYP 3060 Sociology of Sexualities (3) AS SOC
Explores the interactions, among and between people, and 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.

SYO 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 meanings and behaviors of violence, the process of help-seeking, and social interventions for offenders and victims. Open to nonmajors.

SYO 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 disenchantedness, alienation, inequality, and the rise of the credit card society.

SYO 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; types and consequences of social control applied to delinquents.

SYO 4640 Leisure in Society (3) AS SOC
PR: SYG 2000 or CI. 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 4850 Sport in Society (3) AS SOC
PR: SYG 2000 or CI. An introduction to 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. Major concepts used in taxation of income by 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. Tax issues encountered by small businesses. Includes tax planning, capital formation and preservation, tax compliance and tax controversies.

THE 2020 Introduction to Theatre (3) FA 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 2305 Script Analysis (3) FA TAR
PR: TPP 2020. This course teaches theatre students the techniques of close reading of dramatic texts.

THE 3090C Modern Theatre Practice I 6A (4) FA TAR
Initial readings and exercises in theatre; play analysis, performance, and technical theatre for non-theatre majors.

THE 3110 Theatre History I MW (3) FA TAR
PR: THE 2020. The study of theatre history in its cultural context, including theatre architecture, scenography, acting and directing. Normally fifteen plays will be read. Required of all theatre majors. Open to upper division non-majors.

THE 3111 Theatre History II MW (3) FA TAR
PR: THE 2020. A study of Theatre History in more detail as a companion to Theatre History I. This course and the companion Theatre History I will offer the opportunity for more careful study and emphasis on particular aspects of cross-cultural theatre in context.

THE 4180 Theatre Origins 6A MW LW (3) FA TAR
PR: THE 3110 or THE 3111 and one of the following: THE 4320, THE 4330, THE 4360, THE 4401, THE 4434, THE 4435, THE 4442, THE 4444, open to senior theatre-majors with CI. An analysis of the development of theatre out of myth, ritual, and liturgy. Emphasis placed on what affects to understand the resulting phenomena (e.g. Aristotle’s Poetics) can teach us about the nature of our art. Either THE 4160 or THE 4162 may be taken for credit. Required of all theatre majors.

THE 4264 History Of Costume (3) FA TAR
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 culture and social influences. (A requirement in the design track/costume.)

THE 4266 Architecture And Decor (3) FA TAR
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 The Theatre Of Myth And Ritual/Northern European (950-1600) And Oriental (400-1200) 6A MW LW (3) FA 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 plays as compared with Chinese, and Japanese drama.

**THE 4330 Shakespeare For The Theatre** 6A MW LW (3) FA TAR
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. A close study of selected plays with special emphasis on their performance values.

**THE 4360 The 19th Century Theatre Revolution** 6A MW LW (3) FA TAR
PR: THE 3110 or THE 3111. Open 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 O'Neill And After** 6A MW LW (3) FA TAR
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. A course in the function of the script for the theatre artist treating materials in the American Theatre from 1915 to 1964.

**THE 4434 Caribbean Theatre** 6A MW LW (3) FA TAR
PR: 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 shaped 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 4435 Theatre Of Pluralism** 6A MW LW (3) FA TAR
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. The practice of theatre as it reflects cultural heritage, gender, race and sexual orientation. Study of contemporary scripts, critical and artistic statements.

**THE 4442 Course Of The Classic And Neo-Classic Stage** 6A LW (3) FA TAR
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. A study of a significant playwright or grouping of playwrights, e.g. Moliere, Brecht, recent American dramatists.

**THE 4480 Drama-Special Topics** (3) FA TAR
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. A seminar for advanced students focusing on the theory and practice of performance.

**THE 4593 Honors Seminar** (2) FA TAR
Enrollment limited to upper level majors who have been formally admitted to the department honors program. Not available S/U. Required 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.

**THE 4594 Honors Practicum** (3) FA 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 Overmyer, Jeff Jones and Gary Hill.

**THE 4595 Honors Thesis** (1-3) FA TAR
PR: THE 4594. A practical or written thesis related to the seminar and practicum and approved by the department honors committee.

**THE 4761 Drama in Elementary School** (3) FA EDD
Methods of using drama and theatre activities in elementary school, including use of drama and theatre instruction in the elementary school and interdisciplinary theatre projects. Available to majors and non-majors, no extra laboratory sections.

**THE 4761 Methods of Teachin Theatre for Adolescents** (3) FA EDD
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) FA 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) FA 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.

**THE 5909 Directed Studies** (1-6) FA 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) FA 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) FA TAR
CP: TPA 2290L or CI. An introductory course in technical production including coursework in two areas from scenic construction, stage lighting, costume construction, sound, and theatre production/organization. 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) FA TAR
CP: TPA 2291L or CI. An introductory course in technical production including scenic construction, stage lighting, costume construction, sound, and theatre organization. Required for Theatre majors. Requires sequential semester enrollment with TPA 2200 and TPA 2291L. Open to non-majors.

**TPA 2248 Workshop In Stage Makeup** (1) FA 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) FA TAR
CP: 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.

**TPA 2291L Technical Theatre Lab II** (1) FA TAR
CP: 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) FA TAR
PR: TPA 2200, TPA 2290L, TPA 2291L, and TPA 2291L. Open to non-majors. The rehearsal, construction, and performance of major theatrical works. Assignments are made by a faculty committee following the students completion of a PR request form, available in the Theatre Office, and enrollment in this course.

**TPA 3007 Introduction to Design I** (3) FA TAR
PR: TPA 2200, TPA 2211, TPA 2290L, and TPA 2291L. Open to non-majors. This course will include lectures, demonstrations, field trip(s), individual student presentations, and studio activities. The course 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) FA TAR
PR: TPA 3007. This course will include lectures, demonstrations, field trip(s), individual student presentations, and studio activities. The course 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 3208 Drafting and CAD I** (3) FA TAR
PR: TPA 2200, TPA 2211, TPA 2290L, and TPA 2291L. The course will include lectures, demonstrations, field trip(s), individual student presentations, and studio activities. The course will provide an opportunity to develop skills and techniques in the visual presentation of various design and technical drawings. Required of all Design Track Theatre majors. Open to non-majors.

**TPA 3221 Lighting: Theory And Practice** (3) FA TAR
PR: TPA 3008 or CI. 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) FA TAR
PR: TPA 3008 or CI. A practical course in the drafting of patterns for fabricating theatrical costumes. The course will include lectures, demonstrations, field trip(s), individual student presentations, and studio activities. The course will introduce students to millinery, footwear, jewelry, masks, armor, courtesy; both period and modern.

**TPA 3321 Drafting and CAD II** (3) FA TAR
PR: TPA 3008 or CI. Continuation of TPA 3321. The course will include lectures, demonstrations, field trip(s), individual student presentations, and studio activities. The course will provide an opportunity to develop skills and techniques in the visual presentation of various design and technical drawings. Required of all Design Track Theatre majors. Open to non-majors.

**TPA 3326 Sound For The Stage** (3) FA TAR
PR: TPA 2200, TPA 2290L, TPA 2211, and TPA 2291L. Open to non-majors with CI. Basic study of audio components, fundamental
TPP 2500 Body Disciplines (2) FA TAR
PR: TPP 2110. A laboratory course in various disciplines or systems and understanding the actor's body motives, with focus on their use for the stage performer.

TPP 3121 Improvisation I (3) FA 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 3158 Scene Study I (3) FA TAR
PR: Audition and all core 2000 level courses. Identify and investigate the fundamental elements of acting as applied to scene exploration, direction, and presentation.

TPP 3230 Laboratory Workshop In Performance (3) FA TAR
PR: Audition and TPP 2110. May be repeated twice for a total of 9 hours credit. Open to upper level non-majors by audition only. The content of the course will be governed by student demand and instructor interest.

TPP 3580 Special Skills In Movement (2) FA TAR
PR: TPP 2110 or CI. May be repeated for credit. Open to upper level non-majors with CI. Stage combat, circus and acrobatic techniques, and other special techniques of movement.

TPP 3790 Voice Preparation For The Actor (3) FA TAR
PR: TPP 2110. A concentrated laboratory on freeing the breathing function, developing body and oral resonance, and strengthening vocal instruments used on the floor.

TPP 3920 Acting Studio I (8) FA TAR
PR: Audition, all lower level core theatre courses and junior standing. An intensive and comprehensive ensemble workshop that explores the fundamental principles of acting and the skills necessary for play, scene and character analysis. An emphasis is placed on the integration of body, voice, mind and emotions. This course will be team taught by the Performance faculty.

TPP 3921 Acting Studio II (8) FA TAR
PR: TPP 3920. A continuation of Acting Studio I with greater emphasis on addressing individual needs in order to explore emotionally complex characters and scenes in an intensive and systematic way. This course will be team taught by the Performance faculty.

TPP 4140 Styles Of Acting (3) FA TAR
PR: TPP 3155 plus audition or TPP 3921. Examination of the actor's craft and skills needed to fulfill the demands of classical theatre forms.

TPP 4180 Advanced Scene Study (3) FA TAR
PR: TPP 3155. An acting workshop focusing on application of character development and rehearsal techniques over a sustained period leading toward a project showing at semester's end.

TPP 4193 Studio Theatre Performance II (1) FA TAR
PR: TPP 2110. 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 4220 Audition Workshop for Actors (2) FA TAR
PR: TPP 3155 or TPP 3921. Preparation for professional audition; discussion of professional objectives.

TPP 4298 Advanced Design Practicum (3) FA TAR
PR: TPP 4011. This is a laboratory in the practical aspects of production. The course is intended to provide realized production experience to the advanced theatre design student in such areas as costuming, lighting, and scenic design; stage properties design; technical direction; and theatrical production craft/skill areas. The student will be individually mentored by a faculty member through the process of developing and realizing a production design/craft/skill.

TPP 4310 Directing I (3) FA TAR
PR: TPP 3155 or TPP 320. An elective sequence in directing. A workshop course in which the student first encounters the basics of directing and progresses to a more complex scene work in directing. Open to non-majors.

TPP 4311 Directing II (3) FA TAR
PR: TPP 4310 and CI. An elective sequence in directing. A workshop course in which the student first encounters the basics of directing and progresses to more complex scene work in directing. Open to non-majors.

TPP 4600 Writing For The Theatre (3) FA TAR
PR: TPP 3110 or THE 3111. An elective sequence in writing, in which the student first encounters the problems unique to dramatic
language and situation, then progresses to complexities of charac-

ter, plot, and stage dynamics. Normally the aim would be to complete

described above. An interdisciplinary introduction to the research

process as it has been carried out on women of color nationally and inter-

ationally.

VIC 3001 Introduction to Visual Communications (3) AS COM

PR: MMC 2100 and MMC 3602. The survey of visual communication

theory, techniques, and their contemporary application and social

influences as applied to the visual media with emphasis on still

camera, motion picture, and video techniques.

VIC 3943 Visual Communication Practicum (3) AS COM

PR: Senior standing and CI. For visual communications sequence

majors. S/U only. Practical experience outside the classroom where

the student works for a scores under the supervision of a

professional practitioner. Periodic written and oral reports to the

faculty member coordinating the study.

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, anthrop-

ological, and political 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 relation

of power to gender, race and class. No prerequisites.

WST 3220 Women in Western Civilization II HP (3) AS WST

Survey of European women from the late Middle Ages to the

tenetwelfth century; differing consequences of historical change for

women and men. (May also be taken for credit in Women's Studies.)

WST 3225 Women Environment and Gender MW (3) AS WST

Course designed to: provide students with a basic understanding

of relationships between women's physical, health and occupa-

tional environments; consider the position of women regarding

environmental issues; examine role that women can and do play in

influencing 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 3440 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, violence and

homelessness; to enhance health-care and family life and to

confront barriers in education, the media and the criminal justice

system.

WST 4260 Research Issues on Women of Color 6A MW (3) AS WST

An interdisciplinary introduction to the research process as it has

been carried out on women of color nationally and internationally.

WST 4262 Literature by American Women of Color 6A LW

(3) AS WST

Will not be counted toward the English major. An introduction to

current topics and critical issues of 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 Feminism in America 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

address the intersections of gender, class, ethnicity, and race.

WST 4320 Woman's Body/Woman's Mind (3) AS WST

An analysis of the historical, social and political perspectives of

women's health and healing experiences, and how woman's role as

patient and provider of care are shaped by public and cultural

assumptions.

WST 4335 Women and Film (4) AS WST

A study of representation of women in Hollywood films and the

revisions of feminist film theorists and filmmakers working in

documentary, experimental and narrative modes.

WST 4350 Women and Science MW (3) AS WST

An examination of selected issues related to women and the natural

and physical sciences including historical participation of women

in science, current status of women in science, and feminist

critiques of science as a discipline.
WST 4410 Third World Women Writers  6A LW (3) AS WST
Will not be counted toward the English major. Introduces the literature of women from various anglophone countries in Africa, the Caribbean, and South Asia; some U.S. writers will be included to represent a third world diasporic consciousness. (May also be taken for credit in Women's Studies.)

WST 4522 Classics in Feminist Theory  MW (3) AS WST
A study of classic contributions to the elaboration of feminist thought from the 18th century to the present in an attempt to discover the roots of the contemporary feminist movement. (May also be taken for credit in Philosophy.)

WST 4560 Contemporary Feminist Theory  (3) AS WST
PR: Completion of one upper division Women's Studies course. An examination to and an exploitation of a wide range of current feminist theories and debates, as well as an examination of the possible political and practical implications for various theoretical positions.

WST 4900 Directed Readings  (1-3) AS WST
PR: Registration requires instructor's written consent and signed contracts from instructor of choice. To provide advanced students with interdisciplinary research experience in areas of specific interest.

WST 4910 Directed Research  (1-3) AS WST
PR: Registration requires student and instructor of choice. To provide advanced students with interdisciplinary research experience in areas of specific interest.

WST 4930 Selected Topics  (1-4) AS WST
Study in special areas such as Women and Work, Reproductive Law, Women and Health.

WST 4935 Seminar in Women's Studies  (3) AS WST
PR: Women's Studies Major and 24 credit hours in Women's Studies. Recognizing the interplay between personal connections and intellectual experience, this capstone course is designed to focus on topical areas related to women's studies and facilitate linking student learning experience to future plans.

WST 5308 Feminist Spirituality  (3) AS WST
Open to non-majors. Focuses on the many voices of contemporary feminist spirituality, emerging from women's experiences in diverse religious, ethnic and cultural traditions, and representing a range of theoretical perspectives from biblical feminism to goddess worship and wicca. (May also be taken for credit in Religious Studies.)

WST 5825 Internship in Women's Studies  (3) AS WST
PR: Must have completed Comprehensive Exam. Majors Only. All required courses in MA program, CC. Student placement in approved intern setting for a minimum of 150 hours of supervised experience. S/U. Department Approval Required - FAO 153.

WST 5934 Selected Topics  (1-4) AS WST
PR: DPR. Study of current research methods and scholarship on women from a multidisciplinary perspective.

WST 5940 Internship in Women's Studies  (3) AS WST
Student placement in an approved intern setting for a minimum of 150 hours of supervised experience. S/U only. PR: Majors only. All required courses in MA program, CC. Permit.

YOR 1120 Yoruba I  (4) AS WLE
This course is designed to familiarize students with modern orthography and to develop skills in reading, writing, speaking, and understanding spoken Yoruba. Pronunciation in Yoruba and achieving basic communicative competence in the language are among the skills to be attained in the course.

ZOO 2303 Vertebrate Zoology  (3) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L. The origin, diversity, and adaptations of vertebrates. Phylogenetic systematics (cladistics) will be used as the basis for determining evolutionary relationships of organisms.

ZOO 3205C Advanced Invertebrate Zoology  (4) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L. An introduction to the major invertebrate groups, with emphasis on local forms. Field work will be required. Lec.

ZOO 3323C Anatomy of Chordates  (4) AS BIO

ZOO 3713C Comparative Vertebrate Anatomy  (4) AS BIO

ZOO 4512 Sociobiology  MW (3) AS BIO
This course is restricted to seniors. An analysis of Animal and human behavior such as sex, territoriality, and aggression in the context of evolution.

ZOO 4513C Animal Behavior  (3) AS BIO
PR: PCB 3043 or PCB 3063. An introduction to comparative animal behavior (Ethology), with emphasis on communication, social use of space, and behavioral evolution.