AGC 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.

AGC 2071 Principles of Managerial Accounting (3) BA ACC
PR: ACG 2021 with a grade of “C” or better. A study of the accountant’s role in assisting management in the planning and controlling of business activities.

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

AGC 3103 Intermediate Financial Accounting (3) BA ACC
PR: ACG 3103 with a grade of “C” or better (not C-). Determination of cost accounting systems and accounting in today’s environment (giving consideration to the influences of the international environment).

AGC 3341 Cost Accounting and Control I (3) BA ACC
PR: ACG 3074. Study of basic accounting principles including the recording and reporting of financial activity. The preparation and interpretation of financial statements, accounting changes, present value applications, and current assets.

AGC 3113 Intermediate Financial Accounting II (3) BA ACC
PR: ACG 3103 with a grade of “C” or better (not C-). Application of cost accounting systems and accounting in today’s environment (giving consideration to the influences of the international environment).

AGC 4642 Auditing II (3) BA ACC
PR: ACG 3113 with a grade of “C” or better (not C-). Theory and practice underlying revenue recognition, income tax allocation, leases, post-retirement benefits, error analysis, statement of cash flows, full disclosure, and other current auditing topics.

AGC 4351 Cost Accounting And Control II (3) BA ACC
PR: ACG 3341 with a grade of “C” or better (not C-). Application of the material covered in ACG 3341 with special emphasis on cost accounting systems and accounting in today’s environment (giving consideration to the influences of the international environment).

AGC 4351 Cost Accounting And Control II (3) BA ACC
PR: ACG 3341 with a grade of “C” or better (not C-). Application of the material covered in ACG 3341 with special emphasis on cost accounting systems and accounting in today’s environment (giving consideration to the influences of the international environment).

AGC 4822 Auditing (3) BA ACC
PR: ACG 3103 and 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 the collection, processing, and reporting of accounting information.

AGC 4122 Intermediate Financial Accounting (3) BA ACC
PR: ACG 3113 with a grade of “C” or better (not C-). Theory and practice underlying revenue recognition, income tax allocation, leases, post-retirement benefits, error analysis, statement of cash flows, full disclosure, and other current auditing topics.

AGC 4642 Auditing II (3) BA ACC
PR: ACG 4642 with a grade of “C” or better (not C-). Further development of material covered in ACG 4632, with special emphasis on additional reporting topics and audit techniques not previously addressed.

AGC 4901 Independent Study (1-3) BA ACC
PR: Consent of Director. S/U only. Specialized independent study determined by the students’ needs and interests.

AGC 4911 Independent Research (1-4) 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.

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

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

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

AGC 5675 Internal and Operational Auditing (3) BA ACC
PR: ACG 3113 and ACG 3401. CR: 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 selected audit problems.

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 advertisements 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 VICT 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: ADV 3000 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, research, 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 promotion activities; 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 a 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 2000 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 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 4133 3 BASK English (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 social characteristics of adult learners, and political empowerment.

AFA 4331 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 4333 The African Diaspora: Blacks in the Construction of the Americas MW (3) AS AFA
PR: Junior or Senior standing. 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 Americas. The course takes an interdisciplinary approach. The course is not restricted to majors and is not repeatable for credit.
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An examination of political, social, and economic climate of the 1850s that led to the American Civil War. The course does focus upon the war itself in its military, diplomatic, and political consequences through the end of the Reconstruction (1877).

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

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

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

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

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

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

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

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

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

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

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

AMH 3560 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 Viet Nam.

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

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

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

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 II, and the Civil Rights Movement.

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

AML 3032 American Literature From 1860 to 1912 (3) AS ENG
A study of representative works of selected American Realists and early Naturalists, among them Whitman, Dickinson, Twain, James, Howells, Crane, Dreiser, Wharton, Robinson, Dunbar, and Johnson.

AML 3031 American Life 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, and others.

AML 3453 Historical Perspectives in Early American Literature HP (3) AS ENG
Examines American literature from the Colonial Period to the Civil War, with emphasis on the geographical, cultural, political, 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 novels as Cooper, Hawthorne, Melville, James, Twain, Crane, and Dreiser, among others.

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

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

AML 4303 Zora Neale Hurston 6H (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 regional 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 Pound, etc. Some 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 Africana 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 specific cultural eras.

AMS 2201 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 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 military, and American success myth, youth in America. Topic varies.

AMS 3001 American Culture 1880-1915 6A HP (4) (3) 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 3270 Twenty-first-century American Culture HP (3) AS AMS
An examination of cultural patterns in America from 1900 to the present with emphasis on the texture of everyday life.

AMS 3283 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 military, and American success myth, youth in America. Topic varies.

AMS 3301 American Culture 1880-1915 6A HP (4) AS AMS
Integration of major aspects of American life between the 1880s and World War I.

AMS 3310 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 3320 America During the 20s and 30s (3) 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 emergence of cultural nationalism attained by the United States during this period.

AMS 3360 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 Sociology of 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 3600 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 attributes from 17th century to present. Topics include: architecture, furniture, gravestones, toys, and the material subcultures of women, African-Americans and communal societies.

AMS 3700 Racism in American Society 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 conflict will also be studied.

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

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

AMS 4804 Major Ideas in American History (3) AS AMS
Investigates the role of one or more influential ideas in American culture, for example: individualism, identity, community, dissent, reform, utopianism, democracy. Emphasizes the critical analysis of a variety of primary texts. Topic varies.

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

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 Modernism, and Latin America.

AMS 4935 Senior Seminar in American Studies (4) AS AMS
PR: Senior in American Studies or CI. A structured, out-of-class learning experience designed to provide first-hand, practical training in careers related to American Studies. Restricted to American Studies majors. Repeatable up to 4 credit hours.

ANG 5901 Directed Reading (1-4) AS ANT

ANG 5902 Individual Research (2-4) AS ANT
PR: DPR. Contract required prior to registration. S/U. Individual guidance in selected research project.

ANG 5937 Seminar in Anthropology (2-4) AS ANT
PR: Senior or Graduate student. Course Topics to be chosen by students and instructor.

ANT 2000 Introduction to Anthropology SS AF (4) AS ANT
The cross-cultural study of the human species in biological and social perspective. Surveys the four major branches of anthropology: 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 environment are emphasized. 20th century when they became incorporated into the new discipline of anthropology. 20th century developments on these themes are considered.

ANT 3412 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 Paleolithic inhabitants to the fall of Roman civilization. The cultural content will focus on agriculture, material culture, 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. Presentations use the remains 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 the comparative study of material culture at selected sites from all time periods. No field work is involved.

ANT 4158 Florida Archaeology (4) AS ANT
PR: ANT 3101, DPR. Culture history and culture process over 10,000 years from the time of the first people in Florida (Paleo-Indians) through the elaborate Weeden Island and Safety Harbor 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 chronological sequence from its beginnings through Protoliterate 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. Describes and analyzes the 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 history of American archaeology, with an emphasis on the relationship between historical and cultural ecology. Required of all students.

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
ual 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 metropolitan environments. Emphasis on the ethnography of city life and its relationship to the production of urban research.

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

ANT 4495 Methods in Cultural Research (3) AS ANT
PR: DPR. The stages in the development and execution of ethnological research are discussed and practiced. Literature search, hypothesis formation, selection of data collection techniques, elicitation of information, 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 4520 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 methods of osteological analysis. Open to majors/minors 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. Biosocial 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 of knowledge.

ANT 4701 Applied Anthropology (3) AS ANT
PR: ANT 2410 or DPR. A review of approaches applying the anthropological perspective to contemporary human problems. Particular 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. Students will 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 all or 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 4932 Honors Seminar (4) AS ANT
PR: Anticipated Topics in Anthropology (3) AS ANT
PR: DPR. Topics to be chosen by students and instructor permitting newly developing interdisciplinary special interests to be explored.

ANT 4932 Honors Seminar (4) AS ANT
PR: Anticipated Topics in Anthropology (3) AS ANT
PR: DPR. Topics to be chosen by students and instructor permitting newly developing interdisciplinary special interests to be explored.

ANT 4932 Honors Seminar (4) AS ANT
PR: Anticipated Topics in Anthropology (3) AS ANT
PR: DPR. Topics to be chosen by students and instructor permitting newly developing interdisciplinary special interests to be explored.

ANT 4932 Honors Seminar (4) AS ANT
PR: Anticipated Topics in Anthropology (3) AS ANT
PR: DPR. Topics to be chosen by students and instructor permitting newly developing interdisciplinary special interests to be explored.
ANT 4970 Honors Thesis (3) AS ANT
PR: Admission to the honors program, completion of the honors seminar and DPR. S/U only. The student under the supervision of a faculty member will formalize, conduct, analyze, and report in writing a research project in anthropology.

ARA 1120 Modern Arabic I (4) AS WLE
CR: ARA 1120L. An intensive study of basic skills: pronunciation, listening comprehension, speaking and some composition.

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

ARA 1121 Modern Arabic II Laboratory (1) AS WLE
CR: ARA 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.

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

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

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

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

ARC 2001 Introduction to Architecture HP FA (3) AR ARC
An introduction to the analysis and interpretation of the architecture and urban design of various cultures.

ARC 2131 Introduction to Architectural Design and Graphics FA (4) AR ARC
An introduction to fundamental "critical thinking" and graphic communication skills in architecture.

ARC 4784 The City 6A MW (3) AR ARC
This course examines the history of the city, as both idea and reality, with a particular focus on Western cities, and the 20th century. The course is open to undergraduates and students in the Graduate Certificate Program.

ARC 4931 Selected Topics in Architecture and Community Design (2-4) AR ARC
Variable topics will be offered for pre-professional studies for students in the Liberal Studies Major/ALA Degree Program and as electives for other undergraduates.

ARC 5175 Computer Technology (3) AR ARC
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, computer aided design and drafting.

ARC 5216 The Building Arts  (3) AR ARC
PR: CC. Introduction to the man-made environment. The study and profession 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 this role.

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

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

ARC 5362 Core Design II  (6) AR ARC
PR: ARC 5361. 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 are required to name the work of significant architects and use it as a basis for design exploration. Graphic documentation, diagramming, and model studies are stressed.

ARC 5363 Core Design III  (6) AR ARC
PR: ARC 5362. ARC 5470, ARC 5587, ARC 5731, CO: ARC 5689. Study of the various phases of the building delivery and design process, and different approaches to ordering that process in a systematic fashion. The student will use one such systematic approach in the investigation and development of design solutions for a project of moderate scale and complexity. Studies of built form ordering principles, mass/void relationships, scale and proportion, color, texture, contextual relationships, meaning/imagery, and building technology (awareness of structural organization, services networks, construction processes and materials). Aspects of human behavior as design determinants.

ARC 5467 Materials and Methods of Construction (4) AR ARC
PR: ARC 5470, CC. Overview of prefabrication, precast concrete, building envelopes, fire protection, illumination, transportation systems, and acoustics. Lab exercises include computer simulations, lighting studies, transportation systems, and acoustics.

ARC 5479 Environmental Technology (4) AR ARC
PR: Physics, ARC 5470, CC. Comprehensive review of mechanical, electrical, and plumbing systems for buildings. Energy utilization, heating and cooling, water delivery and waste removal, fire protection, illumination, transportation systems, and acoustics. Lab exercises include computer simulations, illumination studies, thermal performance studies.

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

ARC 5732 Architectural History II  (3) AR ARC
Overview of the built environment from the Renaissance to the present. Buildings and cities in their geographical, topographical, political, aesthetic, social, technological, and economic context. Study of various methodological approaches to the analysis of historic architecture, and development of student's own approach. Comprehensive review of mechanical, electrical, and plumbing systems for buildings. Energy utilization, heating and cooling, water delivery and waste removal, fire protection, illumination, transportation systems, and acoustics. Lab exercises include computer simulations, illumination studies, thermal performance studies.

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 architects in their attempts to design the architecture of the modern 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 study the "New Architecture" as defined by those who broke tradition and expressed the new era using modern construction materials and techniques.
the Hellenistic period. Architecture, and other artistic media from the Bronze Age through the prehistoric period through the conquests of Alexander the Great and cultures of ancient Egypt and the Near East, from the PR: ARH 2050 recommended but not required. A study of the art and 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 4547 Buddhist Art (4) VP 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 4557 Chinese Art (4) VP ART PR: DPR. Chinese Art proceeds chronologically, from the Neolithic era up to the contemporary art world. The course considers cultural, linguistic, technical, philosophical, political and religious influences on the art works produced by this ancient society.

ARH 4710 History of Photography 6A MW (4) VP 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 4721C History of Printmaking 6A (3) VP 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 4520 African Art (4) VP ART PR: DPR. A combination of survey, comparative study and in-depth analysis of African sculpture, mainly from West and Central Africa. Emphasis on diversity of forms and contexts, functions, symbolism and meanings.

ARH 4545 Modern Political Iconography MW (4) VP 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 4520 African Art (4) VP ART PR: DPR. 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 4350 Baroque and Rococo Art (4) VP ART PR: DPR. A comprehensive study of the painting, sculpture and architecture in France, Italy, Spain and the Netherlands in the seventeenth and early eighteenth centuries.

ARH 4340 Art History of the United States (4) VP ART PR: DPR. An expanded introductory treatment of basic concepts. For non-art majors.

ARH 4390 Directed Study: Art History (1-3) VP ART PR: Senior standing. Directed study contract required. Designed to extend teaching competencies in the field of art education.

ARH 4396 Senior Seminar in Art Education (2) VP ART PR: Senior standing. CR: ARE 4940. Synthesis of teacher candidate’s coursework in complete college program.

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

ARE 4440 Art Teaching Strategies II (3) VP 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) VP ART PR: ARE 3044. The study and practice of processes and media involved with the exploration and expression of cultural traditions and individual ideas through crafts.

ARE 4462 Community Arts (3) VP ART PR: ARE 3044. The study and practice of processes and media involved with the exploration and expression of cultural traditions and individual ideas through crafts.

ARE 4937 Seminar In The History Of Art History (4) VP ART PR: Four courses in Art History at the 4000 level, DPR. An examination of the origins of Art History as a discipline and the role of the museum in the evolution of modern art.

ARE 4938 Seminar In The History Of Art History (4) VP ART PR: Four courses in Art History at the 4000 level, DPR. An examination of the origins of Art History as a discipline and the role of the museum in the evolution of modern art.

ARE 4393 Seminar In The History Of Art History (4) VP ART PR: Four courses in Art History at the 4000 level, DPR. An examination of the origins of Art History as a discipline and the role of the museum in the evolution of modern art.

ARE 4394 Seminar In The History Of Art History (4) VP ART PR: Four courses in Art History at the 4000 level, DPR. An examination of the origins of Art History as a discipline and the role of the museum in the evolution of modern art.

ARE 4775C Contemporary Issues in Art HP FA MW (4) VP ART PR: DPR. A study of the art and culture of ancient Egypt and the Near East, from the prehistoric period through the conquests of Alexander the Great.

ARH 4130 Greek Art (4) VP ART PR: ARH 2050 or EUH 2011 recommended but not required. A comprehensive study of ancient Greek sculpture, painting, architecture, and other artistic media from the Bronze Age through the Hellenistic period.

ARH 4151 Roman Art (4) VP ART PR: ARH 2050 or EUH 2011 recommended but not required. A comprehensive study of ancient Roman sculpture, painting, architecture, and other artistic media from the founding of Rome through the reign of Constantine.
ART 5795 Methods of Art History (4) VP ART
Must 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) VP ART
Students will be 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 5833 The Atelier, Its Management and History (3) VP ART
This class will consider the history of printmaking and other forms of collaborative art production through the prism of the atelier and its management.

ART 5835 Collection and Exhibition Management (3) VP ART
PR: ART Advisor’s Approval. This class will introduce students to the basic principles of collections care and management and to the intellectual and practical tasks of preparing an exhibition. Sessions will include art handling, registration and condition reporting, preparing works of art for transit,展览 standards for collections, storage and exhibition, and the professional responsibilities of the curator.

ART 5839 Problems in Museum Studies (3) VP ART
PR: ART Advisor. This class is designed as both an academic and theoretical course to introduce students to the museum profession and develop critical thinking skills required to solve problems in the rapidly changing typography of museums. Students will develop managerial and administrative skills as they meet with and discuss the job descriptions of curators, educators, collection managers, marketing professionals, exhibit designers, registrars, fundraisers, and fundraisers.

ART 2201C Fabrications I (3) VP 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 lecture and discussion. Emphasis on images of implied time and space.

ART 2203C Fabrications II (3) VP ART
PR: ART 2201C (for majors). No prerequisites for non-majors. This course will synthesize and expand on the groundwork laid in Fabrications I, which is prerequisite for majors, but not for non-majors. Fabrications II will focus on the significance of meaning and how to achieve it through visual representation in 3 phases: 1 - the personal in images, We - images of cultural ideas, and They - images produced through collaboration.

ART 2301C Beginning Drawing (3) VP ART
Projects exploring the methods, media, and concepts of drawing.

ART 2400C Beginning Printmaking (3) VP ART
PR: ART 2201C, ART 2203C, ART 2301C, ARH 2050 or ARH 2051 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, screen printing, collagophraph, and serigraphy (screen printing).

ART 2500C Beginning Painting (3) VP ART
PR: ART 2201C, ART 2203C, ART 2301C, ARH 2050 or ARH 2051 Projects in painting with emphasis on the exploration of methods and media and the development of individual concepts.

ART 2701C Beginning Sculpture (3) VP ART
PR: ART 2201C, ART 2203C, ART 2301C, ARH 2050 or ARH 2051 Projects in sculpture with emphasis on contemporary theory and issues, the development of individual concepts and the exploration of materials, tools and processes.

ART 2703C Beginning Ceramics (3) VP ART
PR: ART 2201C, ART 2203C, ART 2301C, ARH 2050 or ARH 2051 An introduction to the use of ceramic materials as a means of self expression and critical exploration.

ART 2930C Selected Topics in Art (3-4) VP ART
PR: ART 2201C, ART 2203C, ART 2301C, ARH 2050 or ARH 2051 This 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 3220C Intermediate Electronic Media (3) VP ART
PR: Respective beginning level course. 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. Repeatable up to 15 hours.

ART 3310C Intermediate Drawing (3) VP ART
PR: Respective beginning level course. An extension of the skills and concepts introduced in Beginning Drawing with an emphasis on individual experimentation and the development of advanced critical and technical skills in the discipline. Repeatable up to 15 hours.

ART 3380 Selected Topics in Drawing (3) VP ART
PR: ART 2203C, ARH 2050, ARH 2051, ART 2301C, ART 3310C, ART 2400C, ART 3401C Selected Topics in Drawing is an intermediate course providing focused exploration of content specific to the discipline. It furthers the development of skills and critical discourse in the field. Majors only. Repeatable up to 15 hours.

ART 3401C Intermediate Printmaking (3) VP ART
PR: Respective beginning level course. This course concentrates on developing intermediate skills in printmaking with particular emphasis on conceptual topics. The course is intended for majors. Repeatable up to 15 hours.

ART 3460 Selected Topics in Printmaking (3) VP ART
PR: ART 2203C, ARH 2050, ARH 2051, ART 2301C, ART 3310C, ART 2400C, ART 3530C Selected Topics in Printmaking is an intermediate course providing focused exploration of content specific to the discipline. It furthers the development of skills and critical discourse in the field. The conceptual implications of the multiple will be taught through reading, lecture, discussion and demonstration.

ART 3465 Digital Printmaking (4) VP ART
PR: ART 2301C. Investigation of Printmaking Media including: monoprinting, collagophgraphy, relief printing and the dimensional print with emphasis on the development of individual concepts.

ART 3500C Intermediate Painting (3) VP ART
PR: Respective beginning level course. An extension of the skills and concepts introduced in Beginning Painting with an emphasis on individual experimentation and the development of advanced critical and technical skills in the discipline. Repeatable up to 15 hours.

ART 3560 Selected Topics in Painting (3) VP ART
PR: ART 2203C, ARH 2050, ARH 2051, ART 2301C, ART 3310C, ART 2500C, ART 3530C Selected Topics in Painting is an intermediate course providing focused exploration of content specific to the discipline. It furthers the development of skills and critical discourse in the field. Majors only. Repeatable up to 15 hours.

ART 3610 Beginning Electronic Media (3) VP ART
PR: ART 2201C, ART 2203C, ART 2301C, ARH 2050 or ARH 2051 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 3660 Selected Topics in Electronic Media (3) VP ART
PR: ART 2203C, ART 2301C, ART 3310C, ART 3610, ART 3322C Selected Topics in Electronic Media is an intermediate course providing focused exploration of content specific to the discipline. It furthers the development of skills and critical discourse in the field. Majors only. Repeatable up to 15 hours.

ART 3704C Intermediate Sculpture (3) VP ART
PR: Respective beginning level course. 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 Bronzecasting and to Site, Installation, and Performance. Repeatable up to 15 hours.

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

ART 3730C Selected Topics in Sculpture (3) VP ART
PR: ART 2203C, ARH 2050, ARH 2051, ART 2301C, ART 3310C, ART 2701C, ART 3740C Selected Topics in Printmaking is an intermediate course providing focused exploration of content specific to the discipline. It furthers the development of skills and critical discourse in the field. Majors only. Repeatable up to 15 hours.

ART 3758C Site, Installation, and Performance (3) VP ART
PR: ART 2701C and PR: ART 3704C. Continued studies and projects in sculpture with an emphasis on site-specific sculpture,
installation and performance. A critical and cultural awareness of contemporary issues and media in sculpture will be developed through studio projects assigned readings, discussions, critiques and demonstrations. The course may not be repeated for credit.

ART 3761C Intermediate Ceramics (3) VP ART
PR: Restricted to advanced level course. Intermediate problems in ceramics and emphasis on the exploration of methods and media and the development of individual concepts. Repeatable up to 15 hours.

ART 3780 Selected Topics in Ceramics (3) VP ART
PR: ART2203C, ARH 2050, ARH 2051, ART 2301C, ART 3310C, ART 2750C, ART 3761C. Selected Topics in Printmaking is an intermediate course providing focused exploration of content specific to the discipline. It further develops skills and critical discourse in the field. Majors only. Repeatable up to 15 hours.

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

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

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

ART 4402C Advanced Printmaking (3) VP ART
PR: 9 hours of Intermediate courses in the discipline and a 3.25 major GPA or DPR. This course is designed as an advanced printmaking studio emphasizing control 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. Repeatable.

ART 4504C Advanced Painting (3) VP ART
PR: 9 hours of Intermediate courses in the discipline and a 3.25 major GPA or DPR. Continued projects in painting. Repeatable.

ART 4611 Advanced Electronic Media (3) VP ART
PR: 9 hours of Intermediate courses in the discipline and a 3.25 major GPA or DPR. Advanced exploration of issues and practices involved in the creation of experimental computer art. The course continues as interdisciplinary approach to electronic media with a focus on individual and group projects. Repeatable.

ART 4616 Computer Animation (4) VP ART
Exploration of issues and practices involved in the creation of computer animations, focused on individual creative growth.

ART 4684C Visual Design for the Internet (3) VP ART
Restricted to majors. This upper level course builds upon the concepts students encountered in the introductory level graphic design courses and focuses upon web content creation and animation techniques. Repeatable.

ART 4710C Sculpture II (4) VP ART

ART 4715C Sculpture III (4) VP ART
PR: ART 2702C or ART 4710C. 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. Repeatable.

ART 4782C Advanced Ceramics (3) VP ART
PR: 9 hours of Intermediate courses in the discipline and a 3.25 major GPA or DPR. Continued problems in ceramics. Repeatable.

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

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

ART 4900 Directed Reading (4) VP ART
PR: CI. Registration by contract only. A course of reading and study in an area of special concern governed by student demand, instructor interest and/or department requirements. Registration is by contract only. Repeatable.

ART 4905 Directed Study (1-4) VP ART
PR: CI, DPR. Registration by contract only. Independent studies in the various areas of Visual Arts. Course of study and credits must be assigned prior to registration. Repeatable.

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

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

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

ART 4970C Senior Thesis (2) VP ART
PR: DPR. CI. The creation of a coherent body of advanced level artwork that is supported by a written document describing processes working procedures, research, context and content of each course of study. All majors is restricted to majors, and is required of all B.F.A. candidates.

ART 5390C Drawing (4) VP ART

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

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

ART 5580C Painting (4) VP ART
PR: CI. Registration by contract only.

ART 5740C Sculpture (4) VP ART

ART 5790C Ceramics (4) VP ART
PR: ART 2750C, DPR. Advanced problems in the various ceramic techniques, including glazing and glaze calculation. Repeatable.

ART 5910 Research (1-4) VP ART
PR: CI, DPR. Registration by contract only. Repeatable.

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

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

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

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

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

AST 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, spatial 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, spatial 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 2005. Either may be taken before the other or taken by itself.

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

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

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

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

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

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

AST 5932 Selected Topics in Astronomy (1-5) 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 2010. Introduction to the chemistry and intermediary metabolism of biologically important substances. Lec.-Lab.

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

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

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

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 5000 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 5006 Theory and Design of Bioprocesses (3) EN ECH
PR: Senior or GS standing in engineering or CI. Open to non-engineering students with CI. Selected topics in biomedical engineering, including biomedical engineering, biomedical materials, biodynamics of circulation, separation processes in biomedical systems, and artificial organ systems. May be taken by non-engineering students with CI. Repeatable as subjects and for credit.

BMS 4402 Principles of Human Pharmacology NS (3) MD MSG
PR: CI. 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.

BMS 5190 Anatomy by Diagnostic Testing (1-20) MD MSG
PR: Junior or Standing or CI. Description of normal human anatomy in three dimensions (frontal, coronal, and axial), using contrast medical and imaging modalities available for diagnostic radiologists. Course will be oriented to organ systems describing anatomy of the organ and its vasculature and innervation. Course will include didactic lectures and a standing display of images for self-studies. Plain radiographs, contrast studies of gastrointestinal and urinary tract, arteriograms, computed tomograms, magnetic resonance, and ultrasound scans of body organs will be displayed.

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

BOT 3850C Medical Botany (3) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L, CHM 2210. Study of agents that are produced by plants and that are toxic or psychoactive in human beings or are useful as remedies.

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

BOT 4223C Plant Anatomy (3) AS BIO
PR: BOT 3373C. Comparative studies of tissue and organ systems of moss and present-day vascular plants. Functional and phylogenetic aspects stressed. Lec.-Lab.

BOT 4434C Mycology (3) AS BIO
PR: BOT 3373C or MCB 3020C. A survey of the fungi with emphasis on their taxonomy, morphology, physiology and economic importance. Lec.-Lab.

BOT 4503 Plant Physiology (3) AS BIO
PR: BOT 3373C, PCB 3023, PCB 3034, or PCB 3063. Fundamental activities of plants; absorption, translocation, transpiration, metabolism, growth, and related phenomena.

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

BOT 4610C Economic Botany (3) AS BIO
PR: BOT 3373C. Study of the uses of plants by man for food, chemicals, fibers, and medicines.

BOT 4625C Marine Botany (3) AS BIO
PR: BOT 3373C, PCB 3043 or CI. A field course in marine plants with emphasis on ecology and functional morphology. Field work will stress the ecological aspects of plants in a subtropical marine environment in Florida. Lab.

BOT 5725C Evolution of Flowering Plants (3) AS BIO
PR: BOT 3373C and either BOT 4152C or BOT 4713C or CI. A study of the evolution and phylogeny of the Angiosperms: the origin and nature of early angiosperms, “primitive” angiosperms today; evolutionary processes leading to the origin of genera, families and orders, trends of specialization in the angiosperms; phylogenetic analysis, cladistics, traditional approaches, new approaches; readings from the current and historical literature. Lec/Lab.

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

BSC 2010 Biology I - Cellular Processes NS (3) AS BIO
CP: BSC 2010L and CHM 2045. The course is designed for majors and has a laboratory associated with the lecture. An analysis of cellular systems at a subcellular and subcellular levels: cell structure and function, respiration, photosynthesis, mitosis and meiosis, genetics and gene expression.

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

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

BSC 2011L Biology II Diversity Laboratory (1) AS BIO
CR: BSC 2011. Laboratory portion of Biology II Diversity relating
to organisinal structure and function. Microscopy, as well as, plant and animal development will be at a basic level. Major work will be done by students.

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

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

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

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

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

BSC 2093C Human Anatomy and Physiology I (4) AS BIO
PR: BSC 2010, BSC 2010L and BSC 2011, BSC 2011L. 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 Department majors for free elective credit only.

BSC 2094C Human Anatomy and Physiology II (4) AS BIO
PR: BSC 2093C. 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 Department majors for free elective credit only.

BSC 2932 Selected Topics in Biology (1-4) AS BIO
PR: BSC 3263C. A detailed analysis of marine environment in the Tampa Bay or surrounding area. Field and laboratory work will provide direct experience with the system. The internship.

BSC 3263C Marine Biology (3) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L. A survey of the marine environment, the types of organisms found inhabiting a variety of marine habitats, and the adaptations of the organisms to those habitats. Emphasis is placed on shallow water Florida environments.

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

BSC 4313C Advanced Marine Biology (4) AS BIO
PR: BSC 3263C or BSC 4932. Enrollment is limited to Biology Department Honors students. S/U only. A course to prepare Biology Department Honors students to work on their Honors theses. May be taken by majors for free elective credit only.

BSC 4402L Biological Research Methods (3) AS BIO
PR: BSC 4931 or BSC 4932. Enrollment is limited to Biology Department Honors students. S/U only. A course to prepare Biology Department Honors students to work on their Honors theses. May be taken by majors for free elective credit only. Specialized independent study determined by the student’s needs and interests. The written contract required by the Department of Biology specifies the regulations governing independent study.

BSC 4905 Independent Study (1-3) AS BIO
PR: CI. S/U only. Individual investigation with faculty supervision. Written contract by Department is necessary prior to registration.

BSC 4909 Directed Study (1-3) AS BIO
This course is designed for the student who desires to do independent study. Emphasis will be placed on understanding basic principles of biology relevant to problems and topics of the earth’s environment. May be taken by majors for free elective credit.

BSC 4937 Seminar in Marine Biology (2) AS BIO
PR: BSC 3263 and ONE of the following: PCB 3023 or PCB 3043 or PCB 3063. Course focuses on developing the student’s understanding of contemporary research in the field of Marine Biology. Background information presented and assigned readings will vary according to instructor.

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

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

BTE 4936 Senior Seminar in Business and Office Education (2) ED EDV
PR: Senior standing; CR: BTE 4940. Synthesis of teacher candidate’s courses in complete college program.

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

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

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

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

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

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

CAP 5562 Introduction to Expert Intelligence (3) EN ESB
PR: EEL 4851C or GS. Basic concepts, tools, and techniques used to produce and study intelligent behavior. Organizing knowledge, exploiting constraints, searching spaces, understanding natural languages, and problem solving strategies.

CAP 5682 Expert And Intelligent Systems (3) EN ESB
PR: EEL 4851C or GS. Basic concepts, tools and techniques for the design and implementation of expert and intelligent systems.

CBH 4004 Comparative Psychology (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. The study of the evolution of behavior, similarities, and differences in capacities for environmental adjustment and for behavioral organization among important types of living beings.

CCE 4014 Construction Management (3) EN EGX
PR: EGN 3613C. Fundamentals of construction management. Topics include: general definitions, organizational roles, types of contracts, analysis of labor and equipment, cost estimating, contractor cash flow analysis, planning and scheduling, project control, construction administration, quality and safety management, and use of computer software in construction management.

CCE 5035 Construction Management & Planning (3) EN EGX
PR: EGN 3613C. Fundamentals of construction management. Topics include: general definitions, organizational roles, types of contracts, analysis of labor and equipment, cost estimating, contractor cash flow analysis, planning and scheduling, project control, construction administration, quality and safety management, and use of computer software in construction management.
CCJ 3003 Crime and Justice in America SS (4) AS CJP
May be taken by both majors and non-majors for credit. This course is a non-technical survey of the nature of crime in the United States and the ways in which our society seeks to deal with crime, the victims and victims of crime.

CCJ 3024 Survey of the Criminal Justice System SS (3) AS CJP
An introduction to the structure and operation of law enforcement, prosecution, the courts, and corrections. Also includes brief coverage of prison and parole and administration of criminal justice.

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

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

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

CCJ 4450 Criminal Justice Administration (3) AS CJP
PR: Junior standing, CCJ 4114 or CJE 4114 or CI. Focuses on the relationship between mental illness and criminality, with focus on psychiatric labeling of deviant behavior and its implications for the handling of the criminal offender.

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

CCJ 4910 Directed Research (1-3) AS CJP
PR: Junior standing, CCJ 3024, CCJ 3610, CCJ 3621, CI. S/U only. (a) Students wishing to enroll must make arrangements with a faculty member during the semester prior to actually taking the course. (b) A minimum of four 4 CCJ courses must have been completed satisfactorily prior to enrollment. (c) Approval will be given to Criminal justice majors. (d) Individual faculty members may add additional requirements at their discretion. No more than six hours of CCJ 4910 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 direct supervision of a faculty member of the program.

CCJ 4910L Directed Readings (1-3) AS CJP
PR: Junior standing, CCJ 3024, CCJ 3610, CCJ 3621, CI. S/U only. (a) Students wishing to enroll must make arrangements with a faculty member during the semester prior to actually taking the course. (b) A minimum of four 4 CCJ courses must have been completed satisfactorily prior to enrollment. (c) Approval will be given to Criminal justice majors. (d) Individual faculty members may add additional requirements at their discretion. No more than six hours of CCJ 4910L will be accepted toward the minimum number of hours required for the major. This course is specifically designed to provide students with a research experience in which they will work closely with faculty on the development and implementation of research projects in the area of criminal justice.

CCJ 4930 Critical Issues in Policing (3) AS CJP
PR: Junior standing, CCJ 3024 or CJE 4114 or CI. Focuses on some of the most critical issues in law enforcement today including: understanding and controlling police use of deadly force; police deviance, prejudice and discrimination; victimization - perceive police officers; substance abuse by police officers; and administrative review of alleged police brutality.

CCJ 4933 Selected Topics in Criminology (3) AS CJP
PR: Junior standing, CCJ 3024, CCJ 3621, CCJ 3610 or CI. 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 3621, CCJ 3610 and CI. Topics are variable topic seminars; courses are used for the in-depth study and discussion of the relationships among culture, gender, ethics, age, society, and criminal behavior. Such examinations may include the options 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 during a fall or spring term, fifteen hours per week in summer, within the host agencies in addition to any written work or reading assignments. See requirements for the B.A. degree in Criminal Justice for the number of hours required.

CDA 3101 Computer Organization for Information Technology (3) AS CJP
PR: Any Physics course or CI. Elements of the computer are discussed in terms of the physical and conceptual design of memory, processors, busses and I/O elements. Organization of the system is cast in a meta-language that captures the logical and physical nature of the computer and the relationships among components of the computer. The major focus will be on law enforcement and correctional agencies.

CDA 3103 Computer Organization (3) EN ESB
PR: PHY 2049 or PHY 2054 and DPR. Introduction to computer hardware, logic elements and Boolean algebra, computer arithmetic, the central processing unit, assembly language programming, input/output, and memory.

CDA 3201 Computer Logic and Design (3) EN ESB
PR: CDA 3103, COP 3514; CR: 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.

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

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

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

CDA 4203L Computer System Design Lab (1) EN ESB
CR: CDA 4203L. Introduces the student to the concept of system design. Several projects are given including building timing circuits, memory-based and communication circuits, and microcomputer-based designs.

CDA 4205 Computer Architecture (3) EN ESB
PR: CDA 3201, CDA 3201L. Principles of the design of computer systems, processors, memories, and switches. Consideration of the register transfer representation of a computer, ALU's and their implementation, control units, memory and I/O, and the hardware support of operation systems.

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

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

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

CEG 4850 Capstone Geotechnical/Transportation Design MW (3) EN EGS
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
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<th>Course Code</th>
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<td>CES 4605</td>
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<td>Modern Chinese I</td>
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**Notes:**
- PR: Pre-requisites mentioned where applicable.
- CR: Corequisites mentioned where applicable.
- CP: Co-prerequisites mentioned where applicable.
- Language and credit details are provided for each course.

**Course Descriptions:**
- CES 4720 Capstone Structural/Materials Design: Introduction to concrete design and the ACI Building Code Requirements for reinforced concrete; Design of flexural reinforcement in beams and slabs, design of shear reinforcement, design of concrete columns, and design of steel beams.
- CES 4605 Concepts of Steel Design: Introduction to steel design and AISC Manual of Steel Construction: Design of tension members; Compression members; Beams; Beam columns; and bolted, welded, and riveted connections.
- CES 4561 Computer Aided Structural Design: Introduction to computer aided structural analysis and design using existing finite element program, static dynamic loading.
- CES 4805 Concepts of Steel Design: Introduction to steel design and AISC Manual of Steel Construction: Design of tension members; Compression members; Beams; Beam columns; and bolted, welded, and riveted connections.
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- CES 4561 Computer Aided Structural Design: Introduction to computer aided structural analysis and design using existing finite element program, static dynamic loading.
- CES 4805 Concepts of Steel Design: Introduction to steel design and AISC Manual of Steel Construction: Design of tension members; Compression members; Beams; Beam columns; and bolted, welded, and riveted connections.
CHM 1120L Modern Chinese I Laboratory (1) AS WLE
PR: CHI 1120L. S/U only. Concurrent enrollment with lecture. A laboratory designed to offer additional practice using various instructional technologies and media.

CHM 1121L Modern Chinese II Laboratory (1) AS WLE
PR: CHI 1121L. Mandarin. PR: CHI 1120 or equivalent. A continuation of CHI 1120. More sophisticated oral/aural skills are attained. Basic reading skills are acquired.

CHM 2200L Modern Chinese III Laboratory (1) AS WLE
PR: CHI 1121L or equivalent. For language students who intend to attain basic proficiency.

CHM 2201L Modern Chinese IV Laboratory (1) AS WLE
PR: CHI 2200 or the equivalent. Continuation of CHI 2200. Practice of writing, speaking and listening for language students who intend to attain basic proficiency.

CHM 2045L General Chemistry I Laboratory (1) AS CHM
PR: CHM 2045 or CHM 2045L. Laboratory portion of General Chemistry I. Introduction of organic laboratory principles and techniques. PR: CHM 2210 or equivalent. Continuation of organic chemistry laboratory. PR: CHM 2200L or CHM 2210. Laboratory portion of Organic Chemistry I. Introduction of organic laboratory principles and techniques.

CHM 2211L Organic Chemistry Laboratory (2) AS CHM
PR: CHM 2210 or equivalent. Continuation of organic chemistry laboratory.

CHM 2211L Organic Chemistry Laboratory II (2) AS CHM
PR: CHM 2210L or CHM 2211. Continuation of organic chemistry laboratory.

CHM 2392 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 2046, CHM 2046L, MAC 2281 or MAC 2311, PHY 2054, PHY 2046L. Introduction to thermodynamics. Properties of solutions with emphasis on biological applications.

CHM 3401L Laboratory in Physical Chemistry I (3) AS CHM
PR: CHM 2046, CHM 2046L, MAC 2281 or MAC 2311, PHY 2054, PHY 2046L. Fundamental principles of inorganic chemistry including atomic structure, bonding theories and structural consequences, transition metal chemistry and illustrative laboratory techniques. Lec.-lab.

CHM 3610L Intermediate Inorganic Chemistry Laboratory (1) AS CHM
PR: Two semesters of general chemistry laboratory and lab. CR: 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 (1-3) 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. Departmental approval required. S/U only. PR: CHM 2045L. Lec.-lab.

CHM 4130C Methods of Chemical Investigation I (4) AS CHM
PR: CHM 3102C or MAC 2282 or MAC 2312. Properly designed for graduate students and advanced undergraduates. Lec. PR: CHM 3610 or CI. The course content will depend on the interest of faculty members and student demand.

CHM 4131L Methods of Chemical Investigation II (4) AS CHM
PR: CHM 4130C. Continuation of CHM 4130C.

CHM 4300 Biomolecules I (3) AS CHM
PR: CHM 2046. Nature, structure, elucidation, synthesis and (in selected cases) organic chemical mechanisms of biochemical involvement of the major classes of organic compounds found in living systems. Lec.

CHM 4411 Physical Chemistry I (3) AS CHM
PR: CHM 3102C or MAC 2282 or MAC 2312 and PHY 2054 or PHY 2049. Thermodynamics, the states of matter, solutions. Lec.

CHM 4412 Physical Chemistry II (3) AS CHM
PR: CHM 3102C and MAC 2282 or MAC 2312 and PHY 2054 or PHY 2049. Introduction to quantum mechanics and molecular spectroscopy. Lec.

CHM 4412L Physical Chemistry II Laboratory (3) AS CHM
PR: CHM 4410L. Electromagnetic theory of gases, chemical kinetics, and nuclear chemistry. Lec.

CHM 4611 Advanced Inorganic Chemistry (3) AS CHM
PR: CHM 3610C and CHM 4410 or CI. An advanced descriptive and theoretical treatment of inorganic compounds. Lec.

CHM 4905 Independent Study (1-3) AS CHM
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.

CHM 4932 Selected Topics in Chemistry (1-3) AS CHM
PR: CI. The course content will depend on the interest of faculty members and student demand.

CHM 4970 Undergraduate Research (1-3) AS CHM
PR: CI. S/U only.

CHM 5225 Intermediate Organic Chemistry I (3) AS CHM
PR: CHM 2211 or CHM 2211L or CI. PR: CHM 2215 or CI. This course will extend organic chemistry beyond the undergraduate level and will emphasize concepts of stereochemistry and reaction mechanisms.

CHM 5226 Intermediate Organic Chemistry II (3) AS CHM
PR: CHM 5225 or CI. An introduction to synthetic organic chemistry for graduate students and advanced undergraduates. Lec.-lab.

CHM 5405 Applications in Physical Chemistry (3) AS CHM
PR: Either CHM 2211, CHM 2211L, or CHM 3400 or CHM 4410 or graduate standing. Fundamentals of polymer synthesis,
CIS 4253 Ethical Issues for Information Technology (3) AS CHM
PR: CHM 4411, CHM 4610 or CI or GS. Chemical forces, reactivity, periodicity, and literature in organic chemistry; basic core course. Lec.

CHM 5931 Selected Topics in Chemistry (1-3) AS CHM
PR: CI. The following courses are representative of those that are taught under this title: Natural Products, Stereochemistry, Reactive Intermediates, Photochemistry, Instrumental Electronics, Advanced Intermediates, Heterocyclic Chemistry, etc.

CHS 4300 Fundamentals of Clinical Chemistry (3) AS CHM
PR: BCH 3023. Theoretical and practical aspects of the analysis of various body fluids, with emphasis on the medical significance.

CHS 4301L Clinical Laboratory (2) AS CHM
PR: BCH 3023 and CHM 3120C. Laboratory experience in some of the most important clinical determinations. Lec.-Lab.

CJS 4230 Ethical Issues And Professional Conduct 6A MW (3) EN ESB
PR: Senior standing in the Department of Computer Science and Engineering. An introduction to ethical issues arising in the computer sciences, through written analysis and oral presentations of technical situations which involve ethical conflicts.

CJS 4253 Ethical Issues for Information Technology MW (3) US EIT
HUMAN RIGHTS
Human rights and laws as applied to the "gray area" of technological phenomena. The goal is to develop an understanding of what technology introduces to our culture and how we, as individuals, envision the future of society.

CJS 4361 Information Technology Security Management (3) US EIT
PR: Junior standing or above. An overview of information security management techniques and concerns is presented. Topics include: Access control systems, telecommunications and network security, management practices, application and systems development security, crytography, disaster recovery planning, legal and ethical issues, and physical security.

CJS 4412 Information Technology Resource Management (3) US EIT
PR: Junior standing or above. An overview of the information resource management function, with emphasis on information systems management, is covered. Topics include planning, organizing and controlling user services, managing information systems development process, and the fundamentals of EDP auditing.

CJS 4703 Database Systems for Information Technology (3) US EIT
CR: EEL 4854 or CI. Fundamentals of database management systems are presented, covering relational, CODASYL, network, hierarchical, and object-oriented models. Topics include basic design concepts, analysis of efficiency as well as actual implementations of such systems.

CIS 4900 Independent Study in Computer Science (1-5) EN ESB
PR: EEL 4851C or CDA 3201 and CI. S/U only. Specialized independent study determined by the needs and interests of the student.

CIS 4910 Computer Science Project (2) EN ESB
PR: EEL 4851C. Projects intended to develop individual interests and abilities in computer science involving either computer hardware or software aspects of a well defined proposal.

CIS 4930 Special Topics in Computer Science I (1-4) EN ESB
PR: EEL 4851C or CDA 3201 and CI.

CIS 4935 Senior Project in Information Technology (3) US EIT
PR: Senior Standing in Information Technology. Graduates of the IT program must complete a major project dealing with a sub-domain of IT. Projects are supervised by a faculty member, or an approved industrial mentor. Projects range from design to implementation, to applications and demonstration programs.

CJC 4010 American Correctional Systems (3) AS CJP
PR: Senior standing, CCJ 3024 or CCJ 3610 or CI. Analysis of the different treatment philosophies and techniques currently in use in the field, with special attention to experimental and demonstration programs.

CJC 4166 Alternatives to Incarceration (3) AS CJP
PR: Senior standing, CCJ 3024 or CCJ 3610 or CI. This course explores a variety of alternatives to imprisoning the offender, including probation, parole, diversion, and other community-based intervention and treatment approaches.

CJC 4310 Correctional Administration (3) AS CJP
PR: Junior standing, CCJ 3024 or CCJ 3610 or CI. The course provides students with an introduction to issues in correctional administration in both institutional and community corrections.

CJC 4410 Intervention Techniques and Strategies (3) AS CJP
PR: Junior standing, CCJ 3024 or CCJ 3610 or CI. Introduces the student to theories and methods underlying treatment modalities currently employed in corrections.

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

CJE 4044 Police and Juvenile Delinquency (3) AS CJP
PR: Junior standing, CCJ 3024 or CI. Focuses on the unique aspects of law enforcement interaction with juveniles and their families. Issues which emerge when working with multi-cultural populations will be discussed. Police efforts at early detection, intervention, and diversion. Interaction with status offenders and children in-need-of-assistance will be a topic of concern.

CJE 4114 American Law Enforcement Systems (3) AS CJP
PR: Junior standing, CCJ 3024 or CCJ 3610 or CI. Provides a comprehensive examination of the American law enforcement system at the federal, state, and local levels and an assessment of career opportunities within the community.

CJE 4144 Private Security Systems (3) AS CJP
PR: Junior standing plus CJE 4114, CCJ 3024, CCJ 3610, CCJ 3621 or CI. Examines some of the principal methods and techniques currently used to reduce or prevent losses due to theft and casualty.

CJL 4210 Developmental Aspects of Juvenile Delinquency (3) AS CJP
PR: CCJ 3610 and CJE 4010 or CI. Provides the student with a developmental/life course perspective of the processes, events, and factors which occur during childhood and adolescence and cause juvenile delinquency. This course focuses on the conditions which are critical in shaping the delinquent’s behavior during their formative years.

CJL 4211 Juvenile Substance Abuse (3) AS CJP
PR: Junior standing, CJE 4010 or CI. Focuses on youth and drugs. It will cover such topics as the rates and patterns of the use of different drugs by youths with varying sociodemographic characteristics, the context and effects of use of various drugs, the drug-crime connection, prevention, early intervention and treatment efforts, and drug use policy.

CJL 4564 Juvenile Correctional Alternatives (3) AS CJP
PR: Junior standing, CJE 4010 or CI. Focuses on juvenile correctional responses from diversion to the use of secure facilities. How the system attempts to handle status offenders and children in need of supervision will be covered. Diversion, detention, probation, and community-based non-secure facilities will be discussed.

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

CJJ 4074 Correctional Law (3) AS CJP
PR: Junior standing, CCJ 3024, CCJ 3610, or CI. Examines the historical basis of the American criminal law system, the substantive elements of the criminal code, and current procedures.

CJJ 4115 Environmental Law and Crime (3) AS CJP
PR: Junior standing, CCJ 3024 or CI. The course provides students with an introduction to legal issues in the area of corrections, with an emphasis on civil and criminal liability for correctional staff and administrators and on convict’s rights.

CJJ 4115 Environmental Law and Crime (3) AS CJP
PR: Junior standing, CCJ 3024 or CI. The course provides students with an introduction to issues in the area of environmental crime and environmental law.

CJJ 4410 Criminal Rights and Procedures (3) AS CJP
PR: Junior standing, CCJ 3024 or CI. Emphasizes the Constitutional issues and rules that are applied and enforced by the courts while processing criminal cases.

CJJ 4454 Juveniles’ Rights and Procedures (3) AS CJP
PR: CJE 4010 or CI. The course provides students with an introduction to the juvenile justice system, particularly with the issues on juveniles’ rights as they relate to the juveniles in trouble who are processed through the juvenile justice system or probably transferred to the adult criminal justice system.

CJJ 4700 Criminal Investigation (3) AS CJP
PR: CCJ 3024 or CCJ 3610 or CI. Covers the major components of criminal investigation, with special attention to the scientific aspects of criminal investigation and the management of major cases.

CLA 2800 Wordpower from Latin and Greek (3) AS WLE
Study of Greek/Latin elements as a means of building English vocabulary. Examination of Greek/Latin-based terminology from various scientific fields and the adoption into English and current usage. Attention given to Greek/Latin stems, prefixes, suffixes.

CLA 3103 Greek Civilization HP (3) AS WLE
Study of Greek Civilization from its beginning to the Roman period, with emphasis on social customs, political institutions, and daily
CLA 3123 Roman Civilization HP (3) AS WLE
Study of Ancient Roman Civilization with emphasis on social customs, political institutions, and daily life.

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

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

CLA 4930 Selected Topics (1-4) AS WLE
Course content depends on student demand and instructor’s interest and may range over the whole field of ancient languages, literatures and civilizations. Offerings on a semi-regular basis include Tongues of the Bible and the Bible as History.

CLP 3003 Psychology of Adjustment SS (3) AS PSY
Genetic, organic, and learned factors involved in the processes of personal adjustment; applications of mental health principles to everyday living.

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

CLP 4144 Behavior Modification (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Introduction to behavior analysis, and application of learning principles, behavioral measurement, research designs, and interventions in treatment settings.

CLP 4433 Psychological Tests and Measurement (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Students may not receive credit for both CLP 4433 and EDF 4430.

CLT 3003 Psychology of Adjustment SS (3) AS WLE
A course in the Greek and Latin word elements used in science and technology.

CLT 3101 Greek Literature in Translation 6A MW (3) AS WLE
Reading and discussion of major works in Greek literature. Special emphasis on the Iliad, the dramatists Aeschylus, Sophocles, Euripides and Aristophanes. Some attention is given to the social and political background of the works. All readings are in English.

CLT 3102 Roman Literature in Translation 6A MW (3) AS WLE
Reading and discussion of major works in Roman literature. Special emphasis is placed on the Aeneid, comedy and satire. Some attention is given to the social and political background of the works. All readings are in English.

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

CLT 3400 Introduction to Communication SS (3) AS SPE
Introduction to the roles, contexts, and issues in contemporary human communication. Required of Communication majors.

COM 3040 Communication, Gender and Identity (3) AS SPE
Examines the communicative origins and implications of gender roles.

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

COM 3120 Introduction to Communication Theory in Organizations (3) AS SPE
PR: major. COM 2000 or CI; non-majors, COM 3122 or COM 3110 or CI. A survey of communication concepts which impact upon organizational effectiveness.

COM 3122 Interview Communication (3) AS SPE
Students must sign up for a one-hour lab if registering for day-time mass lecture class. A study of communication theory relative to interview situations with emphasis on the employment interview, appraisal interview, and persuasive interview. Student must sign up for a one-hour lab unless registered for night section of 3122.

COM 3122L Interview Communication Lab (6) AS SPE
Students must take this course in conjunction with the mass lecture COM 3122 offered during day. Interview laboratory for practice and individual consultation. Open to majors and non-majors.

COM 4020 Communicating Illness, Grief, and Loss 6A (3) AS SPE
PR: Junior/Senior standing or CI. Focus on stories of illness, grief, and loss to make sense of these experiences; to understand the cultural and rhetorical influences on how stories are told; and to explore the context of everyday life, romantic relationship, families, institutions, and culture in which they occur.

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

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

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

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

COM 4942 Communication Intern Seminar (3) AS SPE
PR: Communication major, minimum GPA 3.0, 75 hours completed, 15 hours of core requirements and 9 electives completed, and CI. Seminar provides students with an opportunity to put into practice concepts and skills acquired in their study of communication. Weekly seminar sessions augment intern experience. Application for seminar must be submitted one semester prior to seminar offering.

COM 5930 Topics in Communication Studies (3) AS SPE
Topical issues in communication.

COP 2120 SC Cobol Programming I (3) EN ESB
Analysis of ANSI Standard COBOL language elements. Development of file structures and commercially oriented applications.

COP 2121 SC Cobol Programming II (3) EN ESB
PR: COP 2120. Advanced applications of ANSI Standard COBOL.

COP 2510 Programming Concepts (3) EN ESB
PR: MAC 2281 or equivalent. An examination of modern programming language emphasizing programming concepts and design methodology.

COP 3451 IT Concepts (3) US EIT
PR: Any PHY course. A lecture and problem solving course which deals with subjects related to computers and information technology. A broad range of conceptual and practical topics in IT are covered.

COP 3514 Program Design (3) EN ESB
PR: COP 2510 or comparable introductory programming course and MPR. The class examines students’ programming knowledge by systematically considering the concepts involved in program design and creation. Students will also build upon their previous programming experience by learning to use the C programming language in a networked environment.

COP 3515 Program Design for Information Technology (3) US EIT
PR: COP 2510 or CI. Concepts associated with the design and implementation of computer programs are studied, with emphasis on creation of programs to be developed and maintained in a variety of environments from small to large information technology organizations.

COP 4020 Programming Languages (3) EN ESB
PR: EEL 4851C. An introduction to programming languages, survey of language types and design of translators and interpreters.

COP 4313 Symbolic Computations in Mathematics 6A (3) AS MTH
PR: MAS 3105 and MAP 2302. Students will write programs to solve problems in various areas of mathematics including calculus and linear algebra with symbolic programming systems such as Maple, Mathematica, or Macsyma.

COP 4600 Operating Systems (3) EN ESB
PR: EEL 4851C. Introduction to systems programming. Design of operating systems. Concurrent processing, synchronization, and storage management policies.

COP 4610 Operating Systems for Information Technology (3) US EIT
PR: EEL 4854 or CI. Introduction to concepts and practices of modern operating systems. Topics include process, parallelism, memory management, resource allocation and file systems. Algorithms are used to understand many of the concepts associated
CRW 4320 Poetry III (3) AS ENG  
PR: CRW 3311, CRW 3312, CRW 3321. An advanced poetry workshop in which students are expected to create works exhibiting a firm knowledge of the principles explored in the preceding courses.

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

CWR 4103 Water Resources Engineering I (3) EN EGX  
PR: CRW 4202. 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 Hydraulic (3) EN EGX  
PR: EGN 3353, Fundamental and applied aspects of pipe flow, free surface flow, and unsteady flow for hydraulic systems.

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

CWR 4812 Capstone Water Resources/Environmental Design MW (3) EN EGX  
PR: CRW 4103, ENV 4001. A capstone water resources design experience for seniors in Civil and Environmental Engineering. A design oriented course both industrial and domestic water treatment, and water transport systems and hydraulic systems, including drainage, water supply, and flood control.

DAA 2100 Fundamentals Of Modern Dance (2) VP DAN  
A studio class for students with a serious interest in concert modern dance. Emphasis on correct alignment, development of strength, rhythmic and dynamic activity as well as spatial and locomotor patterns that underlie the work in more advanced contemporary dance. May be repeated.

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

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

DAA 2205 Ballet I (2) VP DAN  
PR: Admission by placement audition. A studio class for students with a serious interest in Ballet. Further emphasis on correct alignment of the body and a progressive development of positions and barre exercises as well as the application of combinations in center work using classical Ballet vocabulary (French terms). May be repeated.

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

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

DAA 2540 Theatre Dance Styles (2) VP DAN  
PR: DAA 2500 or DAA 2504 or CI. Development of technical skills in social and historical dance forms frequently stylized for use by dance choreographers. Forms to be studied include polka, polka, waltz, folk, tarantella, etc.

DAA 2570 Jazz Theatre Dance (3) VP DAN  
PR: Admission by placement audition and DAA 2504. Further emphasis on projection, phrasing, rhythmic patterns and dynamics. Solo and ensemble work leading to performance.

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

DAA 2900 Introduction to Yoga (2) VP DAN  
PR: EGN 3353, USF Course Descriptions 319

USF Course Descriptions 319

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with operating systems.

COP 4610L Operating Systems Laboratory for Information Technology (1) US EIT  
PR: EEL 4854 or CI. Implementation and evaluation of models discussed in the lecture part of the course. Students implement operating system algorithms in stand-alone mode, and modify real operating system code. Students implement and test algorithms in a lab environment.

COP 4930 Information Technology Seminar (1-3) US EIT  
PR: Senior standing in Information Technology. A survey of current Information Technology topics are covered to keep the IT student abreast of the variety of domains associated with their major. Speakers with a wide variety of IT experience will give presentations to IT students.

COT 3100 Introduction to Discrete Structures (3) EN ESB  
PR: MAC 2281 or equivalent. Introduction to set algebra, propositional calculus and finite algebraic structures as they apply to computer systems.

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

COT 4400 Analysis Of Algorithms (3) EN ESB  
PR: COT 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 POL  
Comparison and analysis of representative European and non-Western political systems.

CPO 4034 Politics of the Developing Areas SS AF (3) AS POL  
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 AFA  
PR: 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 POL  
Studies political systems with common elements. Structure, process, domestic and foreign politics, and regional roles are considered.

CPO 5934 Selected Topics in Comparative Politics (3) AS POL  
Sr./GS. Studies specific substantive areas in Comparative Politics, such as political economy or the politics of specific countries or regions.

CRW 2100 Narration and Description 6A (3) AS ENG  
A study of narrative and descriptive techniques in prose. By making the student sensitive to language usage, it is designed to bridge the gap between expository writing and imaginative writing.

CRW 2112 Fiction I 6A (3) AS ENG  
PR: CRW 2100 or CRW 3111. An introduction to fiction writing, beginning with a practical study of the various elements of fiction and proceeding through the many processes of revision to arrive at a completed work of art.

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

CRW 3311 Form and Technique of Poetry (3) AS ENG  
An examination of the techniques employed in fixed forms from the couplet through the sonnet to such various forms as the rondel, sonnet, and proceeding through the many processes of revision to arrive at a completed work of art.

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

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

CRW 4120 Fiction III (3) AS ENG  
PR: CRW 2100 or CRW 3111, CRW 3112, CRW 3121. An advanced fiction workshop in which works may be carried over from CRW 3121 or longer forms such as the novel may be begun.
DAA 4111 Modern Dance IV (3-4) VP DAN
PR: Admission by placement audition. Intense work on the growth of personal performance styles. Equal emphasis will be given to training the body in the development of technical excellence. May be repeated.

DAA 4211 Ballet IV (3-4) VP DAN
PR: Admission by placement audition or CI. Perfecting the execution of barre work. Intensification of centre work. More stress on aesthetic quality of movement and phrasing. Students expected to be proficient in pointe work. Outside projects, concerts, and performances are required. May be repeated.

DAA 4616 Modern Dance III (2-3) VP DAN
PR: Admission by placement audition. Continuation of DAA 3108. Further emphasis on style and phrasing. Work on projecting mood and quality. Development of technique and phrasing in more advanced choreography, leading to performance. May be repeated.

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

DAA 3209 Ballet III (2-3) VP DAN

DAA 3294 Ballet Variations (1) VP DAN
PR: DAA 3209. This course provides instruction in various forms of ballet. Semester courses include: Pointe technique, Men’s Class, Character Dance, Spanish Dance and Partnering. BFA Ballet concentration students are required to complete two semester hours. May be repeated.

DAA 3394 World Dance Topics (1) VP DAN
Students will experience fundamental knowledge of dance representing various world cultures. In addition to a dance/movement component, a connection will be made to historical, spiritual/religious, ethnological and environmental indigenous aspects of people involved in dance as a cultural experience. May be repeated.

DAA 3614 Choreography I (2) VP DAN
PR: DAA 3615. CR: DAA 3108 or above or CI. BFA students must be concurrently enrolled in Modern III/IV and Ballet III. Study and execution of basic principles of composition. Preparation of studies in theme and variations, breath phrases and metric phrases. May be repeated.

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

DAA 3624 Dance Improvisation (2) VP DAN
For majors and non-majors. Exploring various methods of spontaneously creating dance movement in individual and group situations. Structured and unstructured approaches will be explored. May be repeated.

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

DAA 3686 Performance (1) VP DAN
PR: Admission by audition. Open to all university students proficient in dance techniques and concurrently enrolled in Technique. Involves rehearsal and performance of works presented by the department. May be repeated.

DAA 4111 Modern Dance IV (3-4) VP DAN
PR: Admission by placement audition. Intense work on the growth of personal performance styles. Equal emphasis will be given to training the body in the development of technical excellence. May be repeated.

DAA 4211 Ballet IV (3-4) VP DAN
PR: Admission by placement audition or CI. Perfecting the execution of barre work. Intensification of centre work. More stress on aesthetic quality of movement and phrasing. Students expected to be proficient in pointe work. Outside projects, concerts, and performances are required. May be repeated.

DAA 4616 Choreography III (2) VP DAN
PR: DAA 3105. CR: DAA 3108 or above. Work directed toward duets and group dances. The students will submit choreographic ideas for instructor’s approval, then proceed with rehearsals. Leckab., reading. Rehearsal hours to be arranged.

DAA 4617 Choreography IV (2) VP DAN
PR: DAA 4616. The student will prepare studies based on free form, minor/majors and chance methods. Leckab., reading.

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

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

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

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

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

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

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

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

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

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

DAN 3260 Entry Seminar (2) VP DAN
This is a study of dance-related career opportunities through lectures, assigned reading and video viewing. This course will aid majors in understanding dance as an aesthetic art form through discussion and critical evaluation.

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

DAN 3615 Music For Dance II (2) VP DAN

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

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

DAN 4181 Dance Senior Seminar (2) VP DAN
PR: Dance major with senior 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 4404 Laban Movement Analysis (3) VP DAN
Specialized study in movement theories, body alignment, and movement patterns focusing on the scientific and analytical basis of movement in dance with consideration for developmental processes, technical, creative expression, and performance.

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

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

DEC 4161 Program Management of Distributive and Marketing Education (3) ED 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 GEY
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, maturation, 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 4135 Psychology of Language Development (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Available both to majors and non-majors. Surveys the course of and processes underlying normal language development. Presents data and theory on phonological, semantic, syntactic, and pragmatic development.

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).

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

EAP 1851 English for Foreign Students II (3) AS WLE
PR: EAP 1850 or CI. A continuation of EAP 1850. Emphasis on pronunciation and listening comprehension.

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 Process Engineering 1: Algebraic and Graphical Description (4) EN ECH
PR: EGN 3343. CR: CHM 4410 or ECH 4123C. 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 Laboratory I. (1) EN ECH
PR: EGN 3343; CP: ECH 3023C The theory and application of chemical engineering instrumental measurement methods; density, temperature, flow, pressure, viscosity, refractive index, humidity, gaseous and liquid composition, and pH/ion selective electrodes (ISE) analysis.

ECH 3702 Instrument Systems I (4) EN ECH
PR: EGN 3373. Application of discrete logic operations for sensor interfaced and process control situations in Chemical & Mechanical Engineering, use of programmable logic controllers in process control. Introduction to the use of personal computer I/O interface cards of control application.

ECH 4123 Chemical Engineering Thermodynamics (3) EN ECH
PR: EGN 3343. Thermodynamic properties of real systems and solutions. Description of multicomponent, multiphase systems in equilibrium. Applications to separation processes and reactor design.

ECH 4264 Transport Phenomena (4) EN ECH

ECH 4265C Process Engineering 2: Separation Processes (4) EN ECH
PR: ECH 3023C, ECH 4264, CHM 4410 or ECH 4123C. 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 reboilers. Pressure drops and pressure differential columns. Transfer to single columns.

ECH 4265L Chemical Engineering Laboratory II (1) EN ECH
CP: ECH 4265C. Chemical Engineering processes laboratory experiments: fluid flow, heat transfer, phase and chemical equilibria, reacting systems, and design and evaluation of Distributive and Marketing Education Cooperative Programs.

ECH 4232C Automatic Control I (4) EN ECH

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

ECH 4615 Plant Design MW (4) EN ECH

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

ECH 4900 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 (1-4) EN ECH
CP: CI.

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

ECH 4936 Undergraduate Seminar (1) EN ECH

ECH 5324 Automatic Process Control II (3) EN ECH
PR: ECH 4323C or CI, majors only / 2 hrs lec., 3 hrs. lab/week. The course covers the root locus and frequency response methods to study stability of control loops. The techniques of ratio, cascade — NTU and HTU. Sizing of partial condensers and reboilers. Pressure drops and pressure differential columns. Transfer to single columns. The techniques of ratio, cascade — NTU and HTU. Sizing of partial condensers and reboilers. Pressure drops and pressure differential columns. Transfer to single columns.

ECH 5740 Theory and Design of Bioprocesses (3) EN ECH
Introduction to biotechnology, including applied microbiology, enzyme technology, biomass production, bioreactor design, and fermentation processes.

ECH 5742 Pharmaceutical Engineering (2) EN ECH
Introduction to pharmaceutical engineering, including dosage forms (tablets, capsules, powders, liquids, topical forms, and aerosols), recipients, regulatory issues, clinical studies, and good manufacturing practices.
ECH 5747C Selected Topics in Chemical Engineering Biotechnology (1-3) EN ECH
PR: Senior or GS standing in engineering or CI. Open to majors and non-majors with CI. Selected topics in engineering in biotechnology, including cell separation technology, immobilized enzymes and cells, food engineering, biohazardous waste, and bioseparations.

ECH 5820 Product Development (2) EN ECH
Introduction to the development of consumer products, including the history of innovation, creativity development, the product development process, and a detailed examination of several product areas.

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

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

ECH 5931 Special Topics IV (1-4) EN ECH
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 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 fiscal policy.

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

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

ECO 2935 Selected Topics in Economics (1-3) BA ECO
Topics to be selected by the instructor or instructors on pertinent economic issues.

ECO 3000 Managerial Economics (3) BA ECO
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 ECO
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 ECO
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 ECO

ECO 3703 International Economics MW (3) BA ECO

ECO 4105 Advanced Price Theory (3) BA ECO
PR: ECO 3100 or ECO 3101 with a grade of “B” or better. An advanced survey of special topics in microeconomics: borrowing and saving, decision making under uncertainty, markets for capital and labor, game theory, production and exchange efficiency, social welfare, and efficiency consequences of market and non-market allocation.

ECO 4201 Advanced Macroeconomic Theory (3) BA ECO
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 ECO

ECO 4323 Radical Political Economy MW (3) BA ECO
PR: ECO 2013 and ECO 2023 or CI. The radical (left) and Marxist schools of thought in economics. Application of radical theory to problems of advanced capitalist and socialist societies.

ECO 4401 Introduction to Mathematical Economics (3) BA ECO
PR: ECO 3100 or 3101, and MAC 2241 or MAC 2233 or CI. Mathematical models of optimizing behavior and economic equilibrium.

ECO 4511 Introduction to Econometrics (3) BA ECO
PR: ECO 3100 or 3101, and QMB 3200 with a grade of “B” or better or CI. Survey of basic econometric techniques. Regression analysis used to estimate consumption, investment, demand, cost, and production functions. Examines problems of auto-correlation, heteroscedasticity, multicollinearity, and specification errors.

ECO 4504 Public Finance (3) BA ECO

ECO 4713 International Macroeconomics (3) BA ECO
PR: ECO 3100 or ECO 3101 with a grade of “C” or better. Advanced analysis of international macroeconomic relationships. Foreign exchange market, international monetary system balance of payments.

ECO 4723 International Trade and Policy (3) BA ECO
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 ECO
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 ECO
PR: CI. Individual student 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 ECO
Topics to be selected by the instructor or instructors on pertinent economic issues.

ECP 3201 Economics of Women and Work MW (3) BA ECO
PR: ECO 1000 or ECO 2013 and ECO 2023. Survey of research on women, men and work in the labor market and the household. Focuses on the economic status of women. Includes historical perspective, examination of the family as an economic unit, family roles, changing work roles, and gender differences in occupation and earnings.

ECP 3203 Labor Economics (3) BA ECO
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 ECO
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 ECO
PR: ECO 2013 and ECO 2023. Advanced analysis of the economic 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 3530 Economics of Health (3) BA ECO
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 national healthcare systems.

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

ECP 4232 Collective Bargaining and Public Policy (3) BA ECO
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 ECO

ECS 3013 Economic Development (3) BA ECO

ECS 4003 Comparative Economic Systems MW (3) BA ECN
PR: ECO 1000 or ECO 2013 or ECO 2023 or CI. The major economic systems: traditional, capitalism, democratic socialism, communism and fascism.

EDE 4301 Classroom Management, School Safety, Ethics, Law and Elementary Methods (3) ED EDE
PR: Admission to the program in the Department of Childhood Education. This course examines the legal issues affecting classroom/school management, school safety, professional ethics and elementary school methods. The course explores the current knowledge of best practices of a variety of teaching and management strategies and methods deemed appropriate for a diverse elementary classroom setting including ESOL students and other exceptionalities.

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; CR: 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. CR: RED 4310, EDG 4620. Concurrent enrollment in EDG 4620-Elementary section. S/U. Requires 6 hours per week in a supervised school experience and attend weekly seminar.

EDE 4942 Childhood Education Internship Level II (6) ED EDE
PR: EDE 4941, RED 4310, EDG 4620, EDF 3122, LAE 4314, EDE 4301, MAE 4310, SCE 4310, LAE 4414, SIE 3413, EME 2040. S/U only. Students spend 12 hours per week in a supervised internship experience in classroom settings and attend a weekly seminar.

EDE 2005 Introduction to Education and Field Experience (3) ED EDC
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 methods for different instructional goals, analysis of teacher 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 3604 Social Foundations of Education MW (3) ED EDF
PR: Upper level standing. Social, economic and political context within which schools function and the values which provide direction for our schools.

EDF 4111 Child Growth and Learning (3) ED EDF
An introduction to 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 4905 Independent Study: Educational Foundations (1-4) ED EDF
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 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) VP EDD
This course for classroom teachers introduces the theory and practice of creative drama as it applies to use by elementary, middle school and secondary school teachers. Beginning with a study of dramatic play as it relates to human development, the course includes basic strategies when using pantomime, voice improvisation, theatre games, and role playing and story dramatization.

EDG 4620 Curriculum and Instruction (3) ED 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 4909 Directed Studies (1-4) ED EDC
PR: Senior standing. Offered only as a scheduled class. Department permit required. To extend competency in teaching field.

EEC 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.

EEC 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.

EEC 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 sociocultural influences such as culture, ethnicity, language and gender impact understandings, values, and learning.

EEC 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.

EEC 4303 Creative and Affective Experiences for Young Children (3) ED EDE
PR: Admission to College of Education. Early Childhood majors only. Develops students’ understandings of young children’s creative and affective 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.

EEC 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 4706 Language and Emerging Literacy (3) ED EDU
PR: Admission to College of Education, EDF 4111. Early Childhood majors only. Provides knowledge of language development and emerging literacy for typical and atypical development in children from birth to third grade, including ESOL children.

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.

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

EEC 4940 Internship: Early Childhood (10-12) ED EDU
CR: EEC 4936. S/U only. Teacher candidate is required to demonstrate professional competencies during one semester of field experience, including professional day in and day out experiences in a public or private elementary school.

EEC 4941 Field Experience I (3) ED EDU
PR: Admission to College of Education. Early Childhood majors only. Field placement with three and four year olds where teacher candidates have opportunities to apply knowledge and skills in authentic situations and become objective observers of young children’s development. Weekly seminars are conducted in conjunction with the field experience which provide teacher candidates opportunity for reflection on their understandings.

EEC 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 understanding of children’s development and implications of development for program planning for both typical and atypical children.

EEC 4943 Field Experience III (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. Focus on developing deeper understanding of growth and development and relationship to curriculum planning with an emphasis on self-evaluation of knowledge, skills, and dispositions essential for teaching.

EED 4011 Introduction to Behavior Disorders (3) ED EDS
PR: EEX 4011, or equivalent or DPR. Survey of emotional, behavioral, and social disorders in children and youth. Historical and current approaches, 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, DPR. To extend competency in teaching field.

EED 4941 Undergraduate Supervised Practicum in Behavior Disorders (1-6) ED EDS
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 (1) 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 programming in C++ for the solution of Electrical Engineering problems.

EEL 3100 Network Analysis and Design (3) EN EGE

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

EEL 4030 Electrical Systems Environments (3) EN EGE

EEL 4102 Linear Systems Analysis (3) EN EGE
PR: EEL 3100. Provides further study in the analysis of linear networks and systems. Includes time and frequency domains of view. Laplace, Fourier and superposition integrals.

EEL 4243 Switching Power Supply Design (3) EN EGE
PR: EEL 4301 Provides basic principles of switching power supply circuits: magnetic circuits, power semiconductors, Buck, Boost, and Flyback configurations, dc to dc converters, ac to ac inverters. Requires the design and construction of a switching power supply.

EEL 4301 Electronics II (3) EN EGE
PR: EEL 3302. Provides further study in electronic circuits. Includes feedback and frequency response techniques in amplifier design.

EEL 4302 Communications Electromagnetics (3) EN EGE
PR: EEL 4301 Provides the basic principles of RF communications circuits including oscillators, mixers, high frequency amplifiers, etc. Requires the design and implementation of a short range communications link including a transmitter and a superheterodyne receiver.

EEL 4351C Semiconductors Devices (3) EN EGE
PR: EEL 3302. An introduction to the fundamentals of semiconductor materials and semiconductor device operation.

EEL 4420 RF & Microwave Measurements (2-3) EN EGE
PR: EEL 4316L or CI. This course introduces students to the theory and applications of modern radio frequency and microwave measurements. Topics include, but are not limited to: spectrum analyzer, noise, power, and non-linear distortion measurements. Modern trends also treated are the use of on-wafer measurements for transistor characterization and the evaluation of monolithic microwave integrated circuits.

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

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

EEL 4471 Electromagnetics (3) EN EGE
PR: MAP 2302, PHY 2049, PHY 2049L and EE majors or CI. Electromagnetic field theory, including static and dynamic electromagnetic fields; applications; environmental effects (effects of radiation, magnetic field, etc.)

EEL 4512C Introduction to Communication Systems (3) EN EGE
PR: EEL 4102. Provides an introduction to the fundamental principles of analog and digital communication systems. Theory is put into practice by investigating a variety of applications. Lectures and projects develop understanding of modern communication systems design and analysis.

EEL 4567 Electro-Optics (3) EN EGE
PR: EEL 3301L, EEL 3302L, EEL 3410. An introduction to the field of electro-optics, including visible and infra-red sources and detectors, radiometry, optical and electronic components, and fiber optics.

EEL 4657 Linear Control Systems (3) EN EGE

EEL 4705 Logic Design (3) EN EGE
PR: EGN 3373, CR: EEL 4705L for CS & E students CP: COP 2002. Binary number systems; truth functions; Boolean algebra; combinational and sequential circuits. Types of combinatorial circuits; synchronous logic circuits in computers.

EEL 4705L Logic Laboratory (1) EN EGE
CR: EEL 4744. Application of microprocessors and microcontrollers for laboratory testing, processing, display and real-time signal input/output and control.

EEL 4743L Microprocessor Principles and Applications (3) EN EGE
Ethical Issues

interrupts and priority systems. Software design and documentation.

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

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

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

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

EEL 4782L Information Networks Laboratory for Information Technology (1) US EIT
CR: COP 4610 or CI. The lab section of this course will allow students to apply hardware and software concepts discussed in the lecture portion of the class. Special isolated networking labs provide both software and hardware tools for student experimentation.

EEL 4851C Data Structures (3) EN ESB
PR: CDA 3103, COP 3514. 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 database management systems. CODASYL, network, hierarchical, and relational database systems are analyzed, and typical applications are presented.

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

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

EEL 4906 Professional Issues and Engineering Design MW (2) EN EGE
PR: EEL 4102; CR: EEL 4301 and Senior Standing, CI. Students apply the knowledge acquired in the classroom to design a system which meets a predetermined set of specifications. Students work individually or in small groups with a faculty member (project director) in their area of interest. (Majors only.)

EEL 4935 Special Electrical Engineering Topics I (1-4) EN EGE
EEL 4936 Special Electrical Engineering Topics II (1-4) EN EGE
EEL 4937 Special Electrical Engineering Topics III (1-4) EN EGE
EEL 5936 Special Electrical Engineering Topics I (1-3) EN EGE
EEL 5937 Special Electrical Engineering Topics II (1-3) EN EGE
EEX 4011 Foundations of Special Education (3) ED EDS
PR: DPR. CR: EEX 4941. 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
PR: EEX 4941. 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 of ‘mainstreamed’ exceptional students. Concurrent field experience projects are included.

EEX 4221 Educational Assessment of Exceptional Students (3) ED EDS
PR: EDF 3214, EDF 4430 and EEX 4011. CR: EEX 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 Exceptional Adolescents and Adults (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 4946 Behavior Management for Special Needs and At-Risk Students (3) ED EDS
PR: EEX 4011. CR: EEX 4941, ELD 4941, or EMR 4941. Techniques to prevent, analyze, and manage challenging and disruptive classroom behavior. Social skills and behavioral development.

EEX 4742 Narrative Perspectives on Exceptionality: Cultural and Ethical Issues 6A LW (3) ED EDS
EGN 2081 Circuit Mathematics and Physics (2) EN EGB

EGNI 5325 Theory and Development of Creativity (3) ED EDS

EGNI 4941 Undergraduate Supervised Practicum in Gifted Student Education (1-6) ED EDS

EGNI 4909 Directed Study: Exceptional Student Education (1-3) ED EDS

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

EEX 4941 Practicum in Exceptional Student Education (1-4) ED EDS

EEX 5705 Seminar in Preschool Handicapped (2) ED EDS

EEX 5402 Working With Families: A Pluralistic Perspective (3) ED EDS

EGII 4011 Undergraduate Supervised Practicum in Gifted Student Education (1-6) ED EDS

EGII 5051 Nature and Needs of the Gifted (3) ED EDS

EGII 5325 Theory and Development of Creativity (3) ED EDS

EGN 2031 History of Technology HP (3) EN EGB

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

EGN 2081 Circuit Mathematics and Physics (2) EN EGB

EGN 2210 Computer Tools for Engineers (3) EN EGB

EGN 2211 Dynamics (3) EN EGB

EGN 3311 Statics (3) EN EGB

EGN 3321 Thermodynamics (3) EN EGB

EGN 3331 Mechanics of Materials (3) EN EGB

EGN 3341 Mechanics of Materials Laboratory (3) EN EGB

EGN 3358 Thermodynamics, Fluids, and Heat Transfer (4) EN EGB

EGN 3353 Basic Fluid Mechanics (3) EN EGB

EGN 3365 Materials Engineering I (3) EN EGB

EGN 3375 Electromechanical Systems (3) EN EGB

EGN 3420 Engineering Analysis (3) EN EGB

EGN 3443 Engineering Statistics I (3) EN EGB

EGN 3613 Engineering Economy I (3) EN EGB

EGN 3615 Engineering Economics with Social and Global Implications SS (3) EN EGB

EGN 3635 Materials Engineering II (3) EN EGB

EGN 2082 History of Electrotechnology HP (3) EN EGB

EGN 3325 Analytical Methods in Engineering (3) EN EGB

EGN 3387 Analytical Methods in Engineering (3) EN EGB

EGN 3397 Analytical Methods in Engineering (3) EN EGB

EGN 3407 Analytical Methods in Engineering (3) EN EGB

EGN 3430 Analytical Methods in Engineering (3) EN EGB

EGN 3447 Analytical Methods in Engineering (3) EN EGB

EGN 3613 Engineering Economy I (3) EN EGB

EGN 3615 Engineering Economics with Social and Global Implications SS (3) EN EGB

EGN 3635 Materials Engineering II (3) EN EGB

EGN 2082 History of Electrotechnology HP (3) EN EGB

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EGN 3387 Analytical Methods in Engineering (3) EN EGB

EGN 3397 Analytical Methods in Engineering (3) EN EGB

EGN 3407 Analytical Methods in Engineering (3) EN EGB

EGN 3430 Analytical Methods in Engineering (3) EN EGB

EGN 3447 Analytical Methods in Engineering (3) EN EGB

EGN 3613 Engineering Economy I (3) EN EGB

EGN 3615 Engineering Economics with Social and Global Implications SS (3) EN EGB

EGN 3635 Materials Engineering II (3) EN EGB

EGN 2082 History of Electrotechnology HP (3) EN EGB

Highlights of the history of electrotechnology and its relation to the development of civilization. The contributions of Volta, Faraday, Morse, Bell, Hertz, Marconi, Franklin, etc. in the context of the development of western civilization. The impact of communications, electronics and computers in the twenty-first century.

EGN 2210 Computer Tools for Engineers (3) EN EGB

PR: MAC 2281. Students will be introduced to computer based engineering tools and their application to the solution of engineering problems. The programming language, FORTRAN, will be the most emphasized tool, but coverage will also be given to other engineering/mathematical tools such as equation solving tools and spreadsheets.

EGN 3000 Foundations of Engineering (1) EN EGB

Introduction to the profession of engineering. Exposure to the different disciplines of engineering incorporate examples of tools and techniques used in design and presentation.

EGN 3311 Statics (3) EN EGB


EGN 3321 Dynamics (3) EN EGB

PR: EGN 3311. Dynamics of discrete particles; kinematics and kinetics for rigid bodies. Lec.

EGN 3331 Mechanics of Materials (3) EN EGB

PR: EGN 3311. Stress, strain, Hooke’s Law; torsion, beam, column analysis; combined stresses; inelastic effects, limit design. Lec.

EGE 3301 Mechanics of Materials Laboratory (1) EN EGB


EGN 3343 Thermodynamics I (3) EN EGB


EGN 3353 Basic Fluid Mechanics (3) EN EGB


EGN 3358 Thermodynamics, Fluids, and Heat Transfer (4) EN EGB

PR: PHY 2549. Thermodynamic concepts of energy, entropy, work and heat and thermodynamic cycles. Basic concepts of fluid mechanics, including viscous fluids, pipe flow with minor losses, simple fluid machinery, momentum and external flow. Steady state conductive and convective heat transfer.

EGN 3365 Materials Engineering I (3) EN EGB

PR: CHM 2046; CR: EGN 3311. Structure and property relationships in engineering materials, i.e., metal, ceramic and polymer systems. Environmental effects are also treated.

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


EGN 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 3433 System Dynamics (3) EN EGB

Dynamic analysis of electrical, mechanical, hydraulic and thermal systems; LaPlace transforms; numerical method; use of computers in dynamic systems.

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 3613 Engineering Economy I (3) EN EGB

A study in analyzing the economic limitations imposed on engineering activities using basic models which consider the time value of money.

EGN 3615 Engineering Economics with Social and Global Implications SS (3) EN EGB

Provides basic economic models used to evaluate engineering activities and an understanding of the social and ethical implications of financial decisions in a multicultural environment through lectures, case studies and current readings.

EGN 3635 Materials Engineering II (3) EN EGB

PR: EGN 3365. Applications and structure property relationships of commonly used engineering materials. Steel, nonferrous alloys
and their welding, heat treatment and processing. Introduction to
calculations and economic materials.

EGN 4420 Numerical and Computer Methods in Engineering (3) EN EGB
PR: MAP 2302. Computation methods of analysis for engineering
problems involving use of digital computers, matrix methods,
differential equations, curve fitting, integral equations.

EGN 4450 Introduction to Linear Systems (2) EN EGB
PR: MAC 2282. Study and application of matrix algebra, differential
equations and calculations of finite differences.

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

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

EGN 4960 Special Topics in Engineering (1-3) EN EGB
Vector methods in electromagnetism and fluid mechanics. Vector
operators, line and flux integrals, potential and transport theorems,
aplications.

EGN 5422 Engineering Applications of Partial Differential Equations
(3) EN EGB
Power series solutions for ordinary differential equations, Sturm-
Liouville theory, special functions. Vector methods with generalized
coordinates. Separation of variables for partial differential equations.

EGN 5423 Neural Networks and Mathematics for Communication
(3) EN EGB
Finite fields and coding applications. Probabilities of error detection
and correction. Introduction to neural networks. Advanced matrix
algorithms: LU and QR factorizations, least-squares,
pseudoinverses.

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 EGV
Introduces major programs, facilities and opportunities in teaching
Technology Education. Includes historical, current and futuristic
features of courses, labs, and technology.

EIA 4360 Directed Study: Specific Learning Disabilities (1-3)
ED EGV
PR: EEX 4011 or DPR. Characteristics, needs and abilities of
children with SLD. Emphasis is on theories, issues, trends, and
philosophy of programs for such children.

EIV 4210 Program Management: Industrial-Technical Education
(4) ED EGV
Organization, coordinating, 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 EGV
Instructional techniques in industrial-technical education.

EIV 4360L Wireless Circuits & Systems Design Laboratory (2) EN
Elaborates on theory and practice of wireless circuits and
systems, including modern measurements, fabrication and computer-aided design experiences
at both component and sub-system levels. Not available on an S/ 
U basis.

EMA 3324 Corrosion of Engineering Materials I (3) EN EGE
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
treatments to corrosion control.

EMA 5326 Corrosion Control (3) EN EGE
PR: EGN 3365. Provide understanding of corrosion fundamentals.
Introduct design for corrosion detection, protection, and control.

EME 2040 Introduction to Computers in Education (3) ED EKV
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Department</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EML 4230</td>
<td>Introduction to Composite Materials (3)</td>
<td>EN EGR</td>
<td></td>
<td>A survey course designed to introduce practicing teachers to mechanical and financial engineering problems using programming language such as Visual Basic or Maple. Topics include fundamentals of programming, controlling program flow and arrays. Restricted to majors; not repeatable for credit.</td>
</tr>
<tr>
<td>EML 4124</td>
<td>Heat Transfer</td>
<td>EN EGR</td>
<td></td>
<td>Solution of engineering and science problems using numerical methods. Topics include roots of equations, matrix algebra, simultaneous linear equations, numerical integration, and curve fitting.</td>
</tr>
<tr>
<td>EML 3500</td>
<td>Machine Analysis and Design I</td>
<td>EN EGR</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>EML 3262</td>
<td>Kinematics and Dynamics of Machinery (3)</td>
<td>EN EGR</td>
<td></td>
<td>Introduction to the design 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 engines mechanisms and emissions.</td>
</tr>
<tr>
<td>EML 4325</td>
<td>Mechanical Manufacturing Processes (3)</td>
<td>EN EGR</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4395</td>
<td>Motor Selection and Control (3)</td>
<td>EN EGR</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4421</td>
<td>Internal Combustion Engines (3)</td>
<td>EN EGR</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4551</td>
<td>Capsule Design</td>
<td>EN EGR</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4562</td>
<td>Introduction to Composite Materials (3)</td>
<td>EN EGR</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4550</td>
<td>Machine Design</td>
<td>EN EGR</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4514</td>
<td>Power Plant Engineering</td>
<td>EN EGR</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4501</td>
<td>Air Conditioning Design</td>
<td>EN EGR</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4505</td>
<td>Independent Study</td>
<td>EN EGR</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4530</td>
<td>Mental Retardation and Developmental Disabilities (3)</td>
<td>ED EDS</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4520</td>
<td>Educating the Severely/Profoundly Handicapped (3)</td>
<td>ED EDS</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
<tr>
<td>EML 4905</td>
<td>Independent Study: Mental Retardation (1-3)</td>
<td>ED EDS</td>
<td></td>
<td>Description of mechanical material cutting, forming and fabrication methods, as used in modern industrial manufacturing processes.</td>
</tr>
</tbody>
</table>
EMR 4941 Undergraduate Supervised Practicum in Mental Retardation (1-6) ED EDS
PR: EEX 4011. S/U only. DPR. Supervised field experiences in assessment, behavior management, and clinical teaching with children who have mental retardation.

ENC 1101 Composition I 6A EC (3) AS ENG
PR: ENC 1101 and ENC 1102 must be taken in numerical sequence. Instruction and practice in the skills of writing and reading.

ENC 1102 Composition II 6A EC (3) AS ENG
PR: ENC 1101. Instruction and practice in the skills of writing and reading.

ENC 1121 Composition I: Honors 6A EC (3) AS ENG
Reserved for students in University Honors. Honors Section of ENC 1101.

ENC 1122 Composition II: Honors 6A EC (3) AS ENG
PR: ENC 1121. Reserved for students in University Honors. Honors Section of ENC 1102.

ENC 2210 Technical Writing 6A (3) AS ENG
PR: ENC 1101 and ENC 1102 or ENC 1121 and ENC 1122. Effective presentation of technical and semi-technical information.

ENC 3211 Communication for Engineers 6A (3) AS ENG
Focuses on writing concerns of engineers. Deals with the content, organization, format, and style of specific types of engineering documents. Provides opportunity to improve oral presentations.

ENC 3213 Professional Writing 6A (3) AS ENG
PR: ENC 1101 and ENC 1102 or ENC 1121 and ENC 1122. Introduction to the techniques and types of professional writing, including correspondence and reports most often found in business, technical, and scientific communities.

ENC 3310 Expository Writing 6A (3) AS ENG
PR: ENC 1101 and ENC 1102 or ENC 1121 and ENC 1122. A course teaching the techniques for writing effective prose, excluding fiction, in which student essays are extensively critiqued, edited, and discussed in individual sessions with the instructor.

ENC 4260 Advanced Technical Writing (3) AS ENG
PR: ENC 2210, or ENC 3310, or CI. Advanced Technical Writing is a course designed to develop writing skills of a high order: technical exposition; technical narration, description, and argumentation; graphics; proposals; progress reports; physical research reports; and feasibility reports.

ENC 4311 Advanced Composition (3) AS ENG
PR: ENC 3310 or CI. Instruction and practice in writing effective, lucid, and compelling prose, with special emphasis on style, logical argumentation, and critical thinking.

ENC 4931 Selected Topics in Professional and Technical Writing (3) AS ENG
PR: ENC 3313, ENC 2210, or ENC 3310 or CI. Focus of the course will be determined by student demand and instructor interest. Topics to be covered may include legal writing, the conventions of business writing, and writing for the social sciences. May be taken twice for credit.

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

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

ENG 4906 Individual Research (1-4) AS ENG
PR: CC. Directed study in special projects.

ENG 4907 Directed Reading (3) AS ENG
PR: CC. Readings in special topics.

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

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

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

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

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

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

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

ENL 3323 Shakespeare from an Historical Perspective HP (3) AS ENG
Examines the plays of Shakespeare from Romeo and Juliet to Othello as manifestations of the social, political, and intellectual forces of the time. Lectures will be available on audio tapes. Will not be counted toward the English major.

ENL 3331 Early Shakespeare (3) AS ENG
A survey of from five to eight of Shakespeare’s comedies, histories, and early tragedies, ending with Hamlet. Special attention to developing the student’s ability to read and interpret the text.

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

ENL 4122 British Novel Through Hardy (3) AS ENG
A critical study of British fiction from 1900 to the present, with emphasis on such writers as Conrad, Lawrence, Joyce, Woolf, Huxley, Orwell, Burgess, Murdoch, Golding, and others.

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

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

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

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

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

ENV 4004L Environmental Engineering Lab (2) EN EGX
Laboratory experience in the measuring of environmental parameters.

ENV 4351 Solid Waste Engineering (2) EN EGX
Introduction to the principles of integrated municipal solid waste management: waste minimization, recycle and disposal options. Design of landfill disposal systems. Course restricted to Civil and Environmental Engineering majors.

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

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

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

**ENV 4891 Capstone Environmental Engineering Design Quality (3) EN EGX**
PR: CWR 4103, ENV 4001, ENV 4417. A capstone environmental design experience for seniors in Civil and Environmental Engineering. A design oriented course to design both industrial and domestic water treatment and water transport systems and wastewater and collection systems. The course emphasizes the design process normally used in engineering practice.

**ENV 5103 Air Pollution Control (3) EN EGX**
PR: EGN 3353. Behavior and effects of atmospheric contaminants and the principles of making measurements in the air environment. Basic concepts of meteorology and monitoring techniques are discussed. Regulatory aspects and air pollution standards are covered.

**ENV 5334 Hazardous Waste Management and Remedial Action (3) EN EGX**
PR: ENV 5345 and one of the following: ENV 6347, ENV 6519, ENV 6658; or CI, majors only. Introduction to hazardous waste management and remediation: RCRA regulatory concepts, definitions, aspects of hazardous waste management from the point of generation to the point of disposal. 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 definition as an umbrella for hazardous waste regulatory concepts; waste types, quantities, and characterization; collection and recycling; facility siting; disposal; thermal treatment. (PR: undergraduate preparation in environmental engineering, or graduate standing in environmental engineering or an environmental science program)

**ENV 5504C Environmental Engineering Processes (3) EN EGX**
PR: ENV 4001, ENV 4004L, ENV 4417 Theory, experimental investigation, and modeling of operational processes in engineered and natural systems. Laboratory evaluation of unit operations and processes used in water and wastewater treatment including chlorination, activated carbon adsorption, biological treatment, gas/liquid mass transfer, filtration, coagulation, flocculation, and settling. Application of experimental data to process analysis and design. Field monitoring of surface water quality; simulation of transport and transformation of pollutants in surface waters.

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

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

**ESI 4242 Industrial Statistics and Quality Control (3) EN EGS**
PR: EGN 3443, 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 3443. Activity forecasting models and control. Design and use of inventory control models, both designs applicable to engineering analyses. Analysis of variance and regression.

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

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

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

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

**ESI 4911 Senior Project (2) EN EGS**
PR: EIN 3434, GQ; 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. Student projects are directed by faculty, with chairman’s approval.

**ESI 5202 Special Topics in Technology II (1-5) EN ESB**
PR: ESI 5103 or equivalent. Specialized independent study determined by the student’s needs and interests.

**ESI 5236 Reliability Engineering (3) EN EGS**
PR: ESI 5219 or equiv., majors only. PR: EGN 3443 or equivalent. Fundamental concepts of reliability. Estimation of reliability of systems and components. Measures of availability, maintainability 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, inventory, network analysis.

**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.

**EUH 2011 Ancient History I (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 Hellenistic kingdoms prior to conflict with the Roman Empire.

**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. 285.

**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 culture of Europe, circa 1050–1500.

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, treats the period 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 Culture (4) AS HTY
A survey of thought, 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 3186 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 nature, distribution, and use of political power during the Middle Ages, in such institutions as feudalism, monarchy, church, and the nation.

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 embracing as well the formative Bronze, Middle, and Archaic ages, and the decline culminating in the conquest of Greece by Philip II of Macedon in 338 B.C.

EUH 3402 Age of Alexander (4) AS HTY
A study focusing on the career of Alexander the Great and on the Greek and Macedonian conquest of Imperial Persia. Also treated are the great Hellenistic kingdoms prior to Rome's conquest of the eastern Mediterranean.

EUH 3412 Roman Republic (4) AS HTY
A study of the Roman Republic from 609 B.C. to the assassination of Julius Caesar in 44 B.C., with a prelude treating Rome's early development under royal rule. Political growth and change provide the framework for the treatment.

EUH 3413 Roman Empire (4) AS HTY
A study of Imperial Rome from the assassination of Julius Caesar in 44 B.C. to the death of the emperor Constantine in A.D. 337. Emphasized is Rome's government of a vast Mediterranean empire including much of the near East and Europe.

EUH 3461 German History to 1870 (4) AS HTY
A political, social, and cultural approach to the history of the Germanys from 1500 through 1870, with emphasis on the Protestant Reformation, the rise of Brandenburg-Prussian, and the unification under Bismarck.

EUH 3462 German History 1870 to the Present (4) AS HTY
A political, social, and cultural approach to the history of the German Empire from 1870 through the 1970's. The nation's two attempts to try for world power status are highlighted, as well as the Weimar Republic, prototype of the embattled democracy.

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

EUH 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.

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

EUH 3576 History of the Soviet Union, 1917-1991 (4) AS HTY
A study of Soviet society under communism from the Revolution to 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
An introductory lecture course linking the human and physical/biological world. The course will develop an understanding of population and resource use, and interaction of the environment. Field trips.

EVR 2001L Environmental Science Lab (1) AS ESP
A laboratory course linking the human and physical/biological world. The lab will develop an understanding of population and resource interactions and complement the lecture course. Field trips.

EVR 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 levels.

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 considerations 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 (1-4) 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 student project consisting of research in a field related to environmental science/environmental policy. Supervised by a faculty member. Contract and report required.

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 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) ED EDV
An overview of current policies and principles in vocational education including their historical, sociological, and philosophical bases. Open to majors and non-majors.

EVT 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 climate; social relationships; and desirable staff and teacher associations.

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

**EVT 4365 Basic Teaching Methods in Vocational Education (4) ED EDV**
Examines the role of the vocational instructor in the teaching learning process; looks at factors that promote and inhibit learning. 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**
Techniques for assessing student's mastery of skills in industrial/technical education. Focuses on specific competencies including developing and administering performance tests, monitoring student process, and others. Open to majors and non-majors.

**EVT 4582 Vocational Education for Special Needs Students (4) ED EDV**
Focuses on modifying the vocational education curriculum, laboratory, shop, student outcomes, learning activities, tests, media, etc. to accommodate the unique learning needs of minority, handicapped, disadvantaged, non-traditional and other special needs students.

**EVT 4651 Equity in Schools and the Workplace (3) ED EDV**
Incorporates empirical findings, and theoretical interpretations of human learning, motivation processes and mechanisms from physiological and social-behavioral perspectives. PR: PSY 3213 with a grade of C or better or CI. Survey of methods, data and theory underlying sensory processes. Visual, auditory, oral, and instrumental learning.

**EVT 4637 Psychology of Language (3) AS PSY**
Historical survey of relations between psychology and linguistics leading to the emergence of psycholinguistics as a field of study. Current status of theory and research in the field.

**FIL 2001 Film: The Language Of Vision 6A FA (4) VP ART**
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.

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

**FIL 3201C Beginning Film (3) VP ART**
Intermediate problems in film with emphasis on the exploration of techniques of film making from around the world. Each week narrative films from acclaimed directors will be screened. Read about and discussed.

**FIL 4202C Advanced Film (3) VP ART PR: FIL 3510C.** More advanced projects in filmmaking to further develop skills both technically and conceptually. Not available for credit to upper-level students who have been admitted to the College of Business. May not be counted toward major requirements in FIN or GBA. Survey of the problems and techniques of personal financial planning. Includes consumer credit, insurance, home ownership, and personal investing, with attention given to current economic and legal constraints.

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

**FIN 2935 Selected Topics in Finance (1-6) BA FIN**
Not available for credit to upper-level students who have been admitted to the College of Business. May not be counted toward major requirements in FIN or GBA. Emphasizes the operations of the security markets and the risks and returns of alternative investment media. Designed for non-business administration students.

**FIN 3233 Money and Banking (3) BA FIN**
Not available for credit to upper-level students who have been admitted to the College of Business. May not be counted toward major requirements in FIN or GBA. Emphasizes the operations of the security markets and the risks and returns of alternative investment media. Designed for non-business administration students.

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

**FIN 4202C Advanced Film (3) VP ART PR: FIL 3510C.** More advanced projects in filmmaking to further develop skills both technically and conceptually. Not available for credit to upper-level students who have been admitted to the College of Business. May not be counted toward major requirements in FIN or GBA. Survey of the problems and techniques of personal financial planning. Includes consumer credit, insurance, home ownership, and personal investing, with attention given to current economic and legal constraints.

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**FIN 4202C Advanced Film (3) VP ART PR: FIL 3510C.** More advanced projects in filmmaking to further develop skills both technically and conceptually. Not available for credit to upper-level students who have been admitted to the College of Business. May not be counted toward major requirements in FIN or GBA. Survey of the problems and techniques of personal financial planning. Includes consumer credit, insurance, home ownership, and personal investing, with attention given to current economic and legal constraints.
operations of a firm. Topics to be covered include cash management, credit and collection policy, inventory decisions, and sources of short-term financing.

FLE 4414 Advanced Corporation Finance (3) BA FIN
PR: FIN 4504. An examination of the financial policies of corporations with special reference to dividend policy, financial structure, capital expenditures, acquisitions, mergers, and reorganizations.

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

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

FIN 4504 Principles of Investments (3) BA FIN
PR: ECO 2013 and FIN 3403. 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 on the valuation process.

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

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

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

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

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

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

FLE 4316 Language Principles and Acquisition (1-3) ED EDX
PR: FLE 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 Methods of Teaching Foreign Languages and ESOL in the Secondary School (3) ED EDX
PR: FLE 4314. Fluency in the target language and in English or DPR. Methods of teaching foreign languages within a communicative framework. Includes consultation and practice of current instructional techniques in listening, speaking, reading and writing skills, testing, 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 4356 ESOL Competencies and Strategies (1-3) ED EDX
Designed to enable participants to meet the special limitations and cultural educational needs of LEP students in content area classes. Designed to provide a theoretical and practical foundation for ESOL competencies and strategies.

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

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

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

FLE 5365 ESOL Education in Content Areas (3) ED EDX
Enables participants to meet the special linguistic & cultural educational needs of limited English proficient (LEP) students in content area classes. Provides a theoretical & practical foundation for ESOL competencies in courses include ESOL infusion.

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 4101 or equivalent.

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

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

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

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

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

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

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

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

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

FRE 2270 Overseas Study-Intro. French (1-6) AS WLE
PR: FRE 2200 or equivalent. This course is designed to build reading skills in French while giving students a broad background in French culture.

FRE 3230 Reading in French Literature and Culture (3) AS WLE
PR: FRE 2201 or equivalent. A fundamental composition course for students who have completed FRE 2200 and/or 2201.

FRE 3440 Composition I (1) AS WLE
PR: FRE 2200 or equivalent. An introduction to the French writing process. Focus is on writing sentences and paragraphs.

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.

FRW 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.

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

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

FRW 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.

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

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

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

FRW 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 3140 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 MW (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. Course taught in French.

FRW 4101 Introduction to French Drama and Poetry MW (3) AS WLE
PR: FRE 3230. A study of the history of drama and poetry. Will include medieval drama, Racine, Corneille, Moliere, Anouilh, Sartre, Ionesco and others. Will also include Villon, Ronsard, Du Bellay, Lamartine, Hugo, Vigny, Musset, Baudelaire, Maillart, Rimbaud, Valery, Peguy, Eluard, Apollinaire, Char, and others. Course content may vary from year to year. Course taught in French.

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

FRW 5226 20th Century Poetry and Theatre AS WLE

FRW 5286 The 20th Century Novel AS WLE
PR: FRW 4100. Proust, Gide, Mauriac, Maupassant, Camus, Robbe-Grillet.

FRW 5314 Classical Drama AS WLE
PR: FRW 4101. Corneille, Moliere, and Racine.

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

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

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

FRW 5528 Pre-Romanticism AS WLE

FRW 5535 Romanticism and Early Realism AS WLE

FRW 5556 Naturalism and Realism 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 5554 Selected Topics (1-3) AS WLE
PR: Upper-level or graduate standing. Study of an author, movement or theme.

FSS 3220 Introduction to Food Production Management AS WLE
Food preparation, standards and techniques in commercial food production and service. Factors affecting the quality of food, practical experience in food production and service, in accordance with food standards, sanitation & safety and cost control.

GEA 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.

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

GEA 3290 Geography of Middle America AS GPY
GEA 3405 Geography of Latin America 6A AS GPY
GEA 3500 Geography of Europe 6A AS GPY
GEA 3703 Geography of Asia AS GPY

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

GEB 2935 Selected Topics in Business AS WLE
Topics to be selected by department chairs.

GEB 4890 Strategic Management and Decision Making MW (3) AS BGA
PR: Senior standing and FIN 3403, MAN 3025, MAR 3023. The course is intended to provide unifyling, integrating, and coordinating opportunity to tie together concepts, principles, and skills learned separately in other, more specialized courses in Business Administration.

GEB 4905 Independent Study AS WLE
PR: CI. S/U only. Specialized independent study determined by the student's needs and interests.

GEB 4915 Independent Research AS WLE
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 AS WLE
PR: CI. 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 AS WLE
Topics of current events in various parts of the world.

GEO 2041C Map Interpretation AS GPY
Analysis and synthesis of various types of maps and map projections.

GEO 2311 Introduction to Earth Systems Science AS WLE
Topics for non-majors only. The application of basic earth system science analysis to environmental problems. Review of impact of human activities on the surface of the earth at local and global scales.

GEO 3013 Introduction to Physical Geography AS WLE
CR: GEO 3013L. Principles of physical geography: maps, earth-system relationships; meteorological, hydrological, pedological, aeolian, and glacial processes; and resultant landforms.

GEO 3013L Introduction to Physical Geography AS WLE
Laboratory portion of introduction to physical geography (GEO 3013).

GEO 3164C Quantitative Methods AS GPY
PR: 12 credit hours in Geography or CI. Statistical analysis in geographic research.

GEO 3400 Digital Thematic Mapping AS GPY
An introduction to the concepts underlying modern, computer-based mapping and to the collection and storage of digital spatial data.

GEO 3402 Human Geography AS GPY
Systematic treatment of human activities on earth; population, settlement, agriculture, industry, trade, transportation, and political aspects are among those considered.

GEO 4602 Urban Geography AS GPY
PR: GEO 3402 or CI. Special analysis of urban areas; growth,
GEO 4114C Geographic Techniques and Methodology (4) AS GPY
PR: GEO 3141C and GEO 3164C, or CI. Selected topics in various geographic techniques and methodologies and their application.

GEO 4131C Remote Sensing of the Environment (4) AS GPY
PR: GEO 3140C and GEO 3164C, or CI. Analysis of satellite images and aerial photographs for studies of the environment.

GEO 4151C Geographic Information Systems (4) AS GPY
PR: GEO 3141C and GEO 3164C, or CI. An introduction to the concepts underlying Geographical Information Systems, with an emphasis on analytical capabilities of such systems in both raster and vector domains.

GEO 4201C Advanced Physical Geography (4) AS GPY
PR: GEO 3013 or CI. Intensive study of a topic selected from physical geography.

GEO 4210 Process Geomorphology (4) AS GPY
PR: GEO 3013 or GLY 2010 or CI. Origin, evolution, and distribution of the landforms of North America.

GEO 4244 Tropical Meteorology NS (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 tropics. Students will take an in-depth look at hurricane climatology, the El Nino and Southern Oscillation phenomenon, thunderstorms and lightning, monsoons, sea-breeze convergence and Florida climatology, surface energy exchange, land use change and its impact on tropical climates.

GEO 4265 SoilGenesis and Classification (3) AS GPY
PR: GEO 3013 or GEO 3164C, or CI. A systematic study of soil genesis and classification with a focus on North American and Florida soils.

GEO 4280C Hydrology (4) AS GPY
PR: GEO 3013 or CI. Introduction to the general principles that govern hydrologic processes. Approaches to hydrologic measurements and the application of hydrologic analyses to water-resource management issues are examined.

GEO 4300 Biogeography (4) AS GPY
PR: GEO 3013 and GEO 3164C, or CI. Analysis of the present and past distribution of species at an intermediate to large spatial scale.

GEO 4340 Natural Hazards (4) AS GPY
PR: GEO 3164C or CI. Examination of the physical, social, economic, political and cultural forces that create the phenomena of natural hazards. Case studies from around the world will include floods, droughts, tornadoes, hurricanes, freezes, heat waves, wild fires, earthquakes, tsunami, and volcanoes.

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

GEO 4421 Cultural Geography (4) AS GPY
PR: GEO 3402 or CI. The interrelationships of culture and nature, from ancient times to the present.

GEO 4464 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.

GEO 4502 Economic Geography (4) AS GPY
PR: GEO 3402 or CI. The spatial organization of economic production, consumption, and exchange systems.

GEO 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, ghettos formation, gentrification, transportation, and policy-making.

GEO 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.

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

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

GEO 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.

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

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

GEO 5177 GIS for Non-Majors (3) AS GPY
An introduction to the concepts underlying digital thematic mapping and geospatial data analysis (GIS) for non-geography majors and non-geography graduate students.

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

GEO 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 climagequences, biosequences, toposequences, lithosequences, chronosequences, and anthroposequences.

GEO 5285 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 streamflows.

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

GEO 5475 Advanced Political Geography (3) AS GPY
PR: GEO 4470 or CI. Advanced study 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.

GEO 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.

GEO 5605 Contemporary Urban Issues (3) AS GPY
PR: GEO 4602; 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 culture.

GEO 5704 Advanced Transportation Geography (3) AS GPY
PR: GEO 4141; 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 1121 Beginning German I (4) AS WLE
CR: GER 1120L. Development of basic skills in listening and reading comprehension, speaking and writing of German.

GER 1120L Beginning German I Laboratory (1) AS WLE
CR: GER 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only.

GER 1121L Beginning German II Laboratory (1) AS WLE
CR: GER 1121L. Continued development of basic skills in listening and reading comprehension, speaking and writing German.

GER 1121L Beginning German II Laboratory (1) AS WLE
CR: GER 1121. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only.

GER 1121L Beginning German II Laboratory (1) AS WLE
CR: GER 1121L. Continued development of basic skills in listening and reading comprehension, speaking and writing German.

GER 2200 German III (3) 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 3210 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 1121 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 Competition II (3) AS WLE
Practical training in modern German usage and differences of style.

GER 5605 Goethe (3) AS WLE
Selected novels, poems: Werther, Wahlverwandtschaften, Wilhelm, Meister, Westöstlicher, 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 out thoughts and actions.

GEW 4100 Survey of German Literature I (3) AS WLE
Course will examine a variety of texts from the 9th to the early 19th century, exposing significant moments in German literature and thought and exploring diverse perspectives on German culture and society. Course taught in German. Not repeatable.

GEW 4101 Survey of German Literature II (3) AS WLE
Course will examine a variety of texts from the 19th to the present, exposing significant moments in German literature and thought and exploring diverse perspectives on German culture and society. Course taught in German. Course not repeatable.

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 WW II with emphasis on Hauptmann, Schnitzler, Hofmannsthal, George Rike, Kaiser, Heym, Traki, Thomas Mann, Hesse, Kafka, Benn, Brecht.

GEW 5489 20th Century Literature: 1945 to Present (3) AS WLE
Study of major trends in German literature since WW II with emphasis on Borchert, Frisch, Durrenmatt, 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 5545 Romanticism (3) AS WLE
Jenaer circle and Heidelberg circle; the late romantic period, the writers between Classicism and Romanticism.

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

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 opportunities for service and employment.

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 aged, cross-cultural perspectives on aging, the psychology of aging and aging at work.

GEY 4322 Gerontological Case Management (3) AS GEY
This course examines the role and function of case management in meeting the care 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 4327 Long-Term Care Administration I (3) AS GEY
PR: GEY 2000. A survey of Long Term Care (LTC) environments. Explored are such issues as definitions of LTC, physiological conditions of LTC uses, the institutional setting, the sociopsychological context, and methods of evaluation and intervention.

GEY 4328 Long-Term Care Administration II (3) AS GEY
PR: GEY 4327, ACG 2011, each with a grade of C or better. Administration of long-term care institutions from a group dynamics perspective. Emphasis on the promotion of problem solving and decision-making via analysis of the psychosocial and sociocultural environment in the nursing home community. Course objective is to create efficient and humane living and working conditions in nursing homes.

GEY 4329 Long-Term Care Administration III (3) AS GEY
PR: GEY 4328, ACG 2011, each with a grade of C or better. This course will familiarize the student with the basic aspects of nursing home administration through the practical application of management theory and concepts.

GEY 4340 Housing for the Elderly (3) AS GEY
Major issues and aspects of conventional and planned housing for the elderly. Several field trips will be taken.

GEY 4360 Gerontological Counseling (3) AS GEY
An introduction to the study of the major mental health problems of the elderly. Current approaches to counseling the elderly in community and institutional settings are discussed. Course not repeatable.

GEY 4401 Research Methods in Gerontology (3) AS GEY
PR: STA 2122 or equivalent with a grade of C or better. Restricted to Gerontology majors, others by departmental permission. Methods and techniques of research in gerontology. Design of gerontological studies, collection and analysis of data, interpretation of results, and preparation of reports.

GEY 4500 Alzheimers Disease Management (3) AS GEY
PR: GEY 2000 or GEY 3328. This course will provide instruction on effective approaches for providing care to persons with Alzheimers Disease and related disorders in residential and home care settings. The major dementia disorders and typical behaviors presented by patients are presented along with strategies for successful behavior management. Building a dementia program and building dementia care teams are also covered.

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

GEY 4628 Minority Aging SS (3) AS GEY
Minority status, race, and ethnicity are socially constructed concepts that reflect our aging society’s value systems, prejudices, and social stratification. This course, which is not restricted to majors nor repeatable for credit, will expose students to these concepts through a life course and political economy perspective.

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

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

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

GEY 5930 Directed Reading (1-3) AS GEY
PR: CI. A reading program with topics in gerontology conducted under the supervision of a faculty member.

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

GEY 4945 Field Placement (1-9) AS GEY
PR: CI. Subject to availability of internship sites approved by the 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 a setting, and aging at work or an internship (6 hours), or to a nursing home if in the BS program (9 hours).

GEY 5620 Sociological Aspects of Aging (3) AS GEY
Examinations, within a sociological frame of reference, the interrelationships between the aged (or aging) and the structure and function of the social system and its major institutionalized
GLY 5630 Economics and Aging (3) AS GLY
Examines basic economic systems as they impact the aged. Emphasis is on applied aspects of economic planning, pensions, insurance, social security and other support systems.

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

GLY 2000 Earth and Environmental Systems 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 learn general principles of geology, travel world-wide on the internet, and participate in discussions on topics ranging from the scientific method to the latest geologic discoveries. Open University course; taught via internet and TV. Open University course; taught via internet and TV.

GLY 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 geologic maps. Lec.-lab.-field trips.

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

GLY 2030 Hazards of the Earth’s Surface: 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 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, origin of the universe, galaxies, the solar system, and earth, evolution of life, great extinction’s including the dinosaurs, evolution of the primate’s, and the environmental future of the planet. (For both non-science and science majors.)

GLY 2050 Science, Earth and Life NS (3) AS GLY
May substitute for GLY 2010 for geology majors. The nature, history and philosophy of science intended primarily for non-science majors. Consideration of science as a way of knowing through examples taken primarily from historical geology and biology (e.g., extinction of the dinosaurs, continental drift, evolution) but also astronomy and geology. Consideration of social relevance of science.

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

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

GLY 2930 Selected Topics in Geology (1-3) AS GLY
Does not count toward the geology major. Topical courses in geology of general interest.

GLY 3311C The Solid Earth: Petrology and Geochemistry (4) AS GLY
Igneous and metamorphic rocks of modern and ancient tectonic environments. Rock-forming processes at plate margins and intraplate sites. Essentials of hand specimen and microscopic mineralogy. Required field trip. Lec-lab. May not be repeated for credit.

GLY 3340C The Solid Earth: Plate Tectonics and Earth Structure (4) AS GLY
PR: 4 hrs. introductory geology including GLY 2015L; 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 3552C Sedimentary Record 1: Sedimentary Processes and Petrology (4) AS GLY
PR: GLY 2015L, CHM 2045, MAC 2281. CR: GLY 3311C. A lecture and laboratory class that discusses sedimentary processes, formation and classification of sedimentary rock, and the sedimentary rock record. Examination of the rock record to solve problems in sedimentary geology.

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

GLY 3720C The Fluid Earth (4) AS GLY
PR: GLY 2015L, MAC 2311 and MAC 2312 or equivalent; CHM 2045 and CHM 2048 or PHY 2048L. Physical, chemical and biological processes affecting fluids of the lithosphere, oceans and atmosphere. Water as a geologic medium and global entity. A systems approach. Not available as 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 geological 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 4060M Moons, Planet and Asteroids: 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 planets 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

GLY 4104C Sedimentary Record 3: Paleontology and Earth Evolution (4) AS GLY
PR: GLY 2015L, GLY 3552C, BSC 2010. The study of “deep time”, including how it is measured, how it is correlated over the Earth’s surface, and how important physical, biological, and chemical geologic processes have varied with time. Lec-Lab.

GLY 4554C Sedimentary Record 2: The Earth’s Surface (4) AS GLY
PR: At least one course in Geology with lab. Principles of weathering, erosion, production, and transport of sediment on the earth’s surface, and the resulting geomorphology. Modern sedimentary environments and the 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. May substitute for GLY 2010 for geology majors. The history of the earth, evolution of life, great extinction’s including the dinosaurs, continental drift, evolution and biogeography. Field trips, lectures, Internet exercises.

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

GLY 4780 Geological Field Studies (1-3) AS GLY
PR: 1 geology course. Lectures and field trip to study modern geologic systems and/or geologic origins of specific regions. Mapping and field description techniques introduced. Topic/destination of trip varies. 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, rift and hominid evolution, and mining and minerals.

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

GLY 4866 Computational Geology (3) AS GLY

GLY 4905 Independent Study (1-3) AS GLY
PR: CI. S/U only. Specialized independent study determined by the student’s needs and interests.
GRL 4051 Undergraduate Research (1-3) AS GLY
PR: Senior advanced standing and written permission of department prior to registration. S/U only. Individual experimental investigations with faculty supervision.

GRL 4290 Geology Colloquium (1) AS GLY
PR: Senior standing in Geology. S/U only. Weekly topical lectures by faculty, graduate students and invited speakers.

GRL 4921 Geocommunications (3) AS GLY
PR: Twelve (12) or more hours upper level geology courses. A course in communicating within the discipline 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 sciences. Course is open to anyone majoring in geology, geography, anthropology or environmental science and policy. Course is not available on a S/U basis for geology majors.

GRL 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.

GRL 4946L Practical and Applied Geology: Teaching Experience (1) AS GLY
PR: Junior standing, declared Geology major, and at least 12 credit hours of Geology courses, or CI. CR: Enrollment in other Practical/Applied sections. Completion of Geology supporting course sequence highly recommended. Hands-on course designed to give students experience in teaching geology. Topics vary widely, with several different offerings each semester. May be repeated for credit.

GRL 4947L Practical and Applied Geology: Laboratory Experience (1) AS GLY
PR: Junior standing, declared Geology major, and at least 12 credit hours of Geology courses, or CI. CR: Enrollment in other Practical/Applied sections. Completion of Geology supporting course sequence highly recommended. Hands-on course designed to teach the basic laboratory skills of a practicing geologist. Topics vary widely, with several different offerings each semester. May be repeated for credit.

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

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

GRL 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.

GRL 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, lettering and outcrop description techniques are emphasized. Destination of trip varies. Trip requires camping and vigorous physical activity. Lec.-field trip.

GRL 5865 Statistical Models in Geology (3) AS GLY
PR: STA 2023 or equivalent or GLY. Application of statistical methods to geologic problems. Emphasis on sampling plans, nature of geologic distributions, and application of analyses of variance to solving geologic problems. Lecture.

GRL 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.

GRW 2050C Typography (3) VP ART
Restricted to majors. This foundational course explores the structure of letter forms and lettering. This course provides information about the importance of type in the context of graphic design and application for printed and electronic media.

GRW 3104 Computer Graphics (3) VP ART
Restricted to majors. This course is the continuation of Graphic Design I. The coursework emphasizes the utilization of electronic media for visual problem solving. Students will increase their skill with web based design and photo-editing software.

GRA 3110 Graphic Design I (3) VP ART
Restricted to majors. This course explores the application of formal design principles to visual problem solving through typography, layout, and web design. Students will apply conventional and electronic tools and techniques to the graphic design process.

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

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

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

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

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

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

GRK 1121 Beginning Modern Greek I Laboratory (1) AS WLE
CR: GRK 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

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

GRK 1121L Modern Greek II Laboratory (1) AS WLE
CR: GRK 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

GRK 2200 Modern Greek III (4) AS WLE
PR: GRK 1121 or the equivalent. For language students who desire 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 and discipline.

GRK 4909 Directed Research (1-4) AS WLE
Departmental approval required. Course permits classes in Modern Greek not available in the regularly scheduled curriculum at departmental discretion.
HBR 1121L Modern Hebrew II Laboratory (1) AS WLE
CR: HBR 1121. A continuation of HBR 1120. An intensive study of basic skills; pronunciation, listening comprehension, speaking and some composition. More sophisticated oral/aural skills are attained. Basic reading skills are acquired.

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

HBR 9905 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 1121 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.

HFT 3005 Introduction to Hospitality and Tourism (3) US HRM
An overview of the hospitality industry, including all of its related fields: restaurant; lodging; meetings, conventions and exhibitions. Also featured are the applications of the general marketing, human resources, leadership, and management.

HFT 3203 Restaurant and Catering Management (3) US HRM
PR: HFT 3244, FSS 3220 Management of food and beverages as they relate to planning, production, supervision and cost control in restaurants and catering food services, with emphasis on techniques of food preparation, menu merchandising, food safety, bar services and wine list.

HFT 3423 Hospitality Information Systems (3) US HRM
PR: ISM 3011, HFT 3006 The study of management information systems in the hospitality management industry. The students will evaluate software and hardware computer systems and application software being used in the hospitality industry and develop selection strategies.

HFT 3424 Cost Control in Hospitality Operations (3) US HRM
PR: HFT 3005, FIN 3403, MAN 3025 Provides students with a thorough understanding of hospitality financial accounting concepts. The emphasis of the course is to use accounting information in making managerial decisions and to prepare and understand hospitality financial statements.

HFT 3503 Hotel Marketing and Sales (3) US HRM
PR: MAR 3023 Principles of marketing and sales and practical application in hospitality marketing philosophies; the marketing mix; product differentiation; corporate travel market; and the association, convention, and trade show market.

HFT 4003 Law and Security for the Hospitality Industry (3) US HRM
PR: HFT 3005 Functions of the law, legal environment and legal reasoning. An overview of the security issues in the hospitality industry. The law pertaining to contracts, workers’ comp and the impact of labor and management (LM) law on the hospitality industry.

HFT 4221 Human Resources Management (3) US HRM
PR: HFT 3005, MAR 3023 Designed to educate new managers and supervisors in the complex issues involved in a comprehensive human resource program and its importance to hotel and restaurant business. Workmen’s Compensation, ADA, training, unions, EEO and discrimination law.

HFT 4253 Lodging Management (3) US HRM
PR: HFT 3005, MAN 3025 Principles, practices, and procedures of managerial functions as they relate to the operation of hotels. Training, conflict resolution, total quality management, crisis management, employee empowerment and service standards are focus of team building.

HFT 4323 Facilities Management in Hospitality Operations (3) US HRM
PR: HFT 3005 Engineering aspects of hospitality establishments, preventive maintenance procedures, energy conservation, waste management, pollution control, life safety systems, and facilities management and layout, air conditioning lighting, sound control.

HFT 4474 Management Accounting and Finance in Hospitality (3) US HRM
PR: FIN 3403, HFT 3005, HFT 3424 Financial functions in hospitality, interpret hospitality financial statements, capital investment decision making, financial instruments and concepts. Analytical modeling for hospitality operations, including ratio analysis and capital budgeting tools.

HFT 4938 Special Topics in Hospitality (1-3) US HRM
PR: HFT 3005 Topics to be selected by instructor and department chairperson for pertinent Hospitality Management issues.

HIS 2931 Special Topics (2-4) AS HTY
An examination of the ways in which societies have organized themselves for war and how societies are changed by war. Also explores gendered expectations in war, and the changing conduct of war. Does not count for History major or minor credit.

HIS 3474 Science and Civilization (4) AS HTY
A thematic study of the interrelationship of science and society in modern history emphasizing the institutional forms, value structures, and social relations in science as they have developed from the scientific revolution to the present.

HIS 3930 Special Topics (2-4) AS HTY
This course is designed to emphasize a selected historical problem or issue that is meaningful and challenging to the student. A variety of instructional approaches will be taken, and topics may vary.

HIS 3308 War and Society (3) AS HTY
An examination of the ways in which societies have organized themselves for war and how societies are changed by war. Also explores gendered expectations in war, and the changing conduct of war. Does not count for History major or minor credit.

HIS 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 methodology. 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 (6) 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.

LHP 4081 Personal Wellness: A Lifetime Commitment (3) ED EDJ
An examination of the bases for adopting a positive health lifestyle with a major emphasis on diet, weight management, physical fitness and standard practices applied to operational situations.

LHP 4722 Health and Physical Education for the Child (2) ED EDE
An examination of the bases for adopting a positive health lifestyle with a major emphasis on diet, weight management, physical fitness and standard practices applied to operational situations.

LHP 4941 Wellness Internship (12) ED EDE
Open to Wellness Leadership Physical Education Majors only. S/
HSC 4120 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.

HSC 2100 Contemporary Health Science SS (3) PH CFH
A comprehensive approach to health concerns and problems in contemporary society, including methods of assessing individual health needs.

HSC 2133 Sex, Health, and Decision-Making (3) PH CFH
This course will provide the student with an overview of the issues involving sexual behaviors, decision-making processes and health outcomes. The course will offer a public health perspective of the consequences of risk-taking activities as well as a psychosocial and cultural view of antecedent behaviors.

HSC 2400 First Aid (2) ED EDP
Meets the American Red Cross certification requirements in standard and advanced first aid.

HSC 2933 Selected Topics in Public Health (1-6) PH PHC
A historical survey of the visual arts, literature, music and thought of the individual to society, and the bases for moral values.

HSC 3301 Health, Safety, Nutrition and Motor Skills for the Young Child (3) ED EDP
Provide students with the knowledge to teach developmentally appropriate motor activities; to provide continuous health services; create and maintain a healthy learning environment; and sequence appropriate health instruction for Pre-K through 3rd grade students.

HSC 4554 Survey of Human Diseases (3) PH CFH
Special topics course. Examples from the arts and letters and the relationship of these arts to the Hindu and Buddhist philosophy-religions.

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 4406 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. Study of the poetry, drama, philosophy, historical writing, painting, sculpture and architecture of ancient Greece, including such authors as Homer, Sophocles, and Plato; monuments such as the Parthenon.

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, 1400-1580, 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 Bosch.

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, Gentileschi, 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 movements, including such authors as Byron, Shelley, Pushkin, and Hoffmann.

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 Twentieth 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 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 needs and interests

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

HUM 4932 Selected Topics in Humanities (1-4) AS HUM
PR: Sophomore standing or CI. This course will deal with a
HUM 4931 Seminar in Humanities 6A (4) AS HUM
PR: Humanities major or CI. Senior standing. Discussion of interdisciplinary humanities. Includes essay.

HUM 4938 Major Issues in the Humanities MW (3) AS HUM
The study of an important topical issue in the Humanities. Materials representing diverse views relating to that issue will be read, and works of art in different media that have relevance to the debate will be studied. Available to majors and non-majors.

HUM 4940 Internship in Humanities (1-2) AS HUM
A structured, out-of-class learning experience providing firsthand, practical training in humanities-related professional careers in the community. Restricted to Humanities majors. Repeatable up to 4 credit hours.

HUN 2201 Nutrition (3) NU NUR
PR: Course work in chemistry and biology or permission of faculty. Open to majors and non-majors. The study of fundamental principles of nutrition as they relate to human life and growth from conception through senescence, interpretation of current nutrition information, and application of nutrition knowledge in the establishment of good eating habits.

HUM 4444 Clinical Nutrition (3) NU NUR
PR: HUM 2201 or equivalent. Focuses on the role nutrition has in maintaining human health and preventing disease processes.

IDH 2009 Discovery: People, Processes and Problems (3) HC HON
PR: Admission to Honors College. An appreciation of the research process in multiple disciplines culminating in the production of a collaborative piece of scholarship.

IDH 1010 Acquisition of Knowledge (3) HC HON
PR: Admission to Honors College. An appreciation of the problems of how human understanding proceeds through operations such as perception, classification, and inference, among others, as well as the open philosophical questions behind these operations.

IDH 2930 Selected Topics (1-4) HC HON
PR: IDH 2010 or CI. This course is designed to emphasize a selected problem or issue that is meaningful and challenging to University Honors students and special populations. A variety of instructional approaches will be used. Topics will vary each semester. Repeatable for a total of 8 credits.

IDH 3100 Arts/Humanities Honors (1-3) HC HON
PR: IDH 2010 or CI. An introduction to western arts and letters from the perspectives of three periods (classicism, romanticism, and modernism), the relationship of ideas to art, the similarities among the arts of a given period, and important differences between periods.

IDH 3350 Natural Sciences Honors (3) HC HON
PR: IDH 2010. An exploration of current knowledge concerning fundamental principles in the Sciences, their potential for application and attendant ethical and philosophical questions.

IDH 3400 Social and Behavioral Sciences Honors (3) HC HON
PR: IDH 2010 or CI. An introduction to the concepts of the Social and Behavioral Sciences, methods of inquiry, discovery, and validation of knowledge. A survey of the way various disciplines examine the question of how society is organized.

IDH 3600 Seminar in Applied Ethics (3) HC HON
PR: IDH 2010. This course explores ethical issues related to selected topics such as Ethics of Technology, Ethics in Business, Bio-Medical Ethics, Personal Ethics Development.

IDH 4000 Honors Program Seminar: Major Works/Majors Issues (4) HC HON
PR: IDH 2010. This course explores major works and major issues in a variety of disciplines. Each section will be devoted to content in a different academic area.

IDH 4200 Geographical Perspectives Honors (3) HC HON
PR: IDH 2010. An introduction to African, Latin American, Middle Eastern, or Asian perspectives focusing on social, political and economic, cultural and intellectual subject matter. The material will be presented within a geographical, chronological, and humanities background.

IDH 4910 Undergraduate Research (1-4) HC HON
PR: DPR. A supervised program of interdisciplinary research in areas of significant interest. Open to all USF students by application through the undergraduate research coordinator.

IDH 4930 Selected Topics (1-4) HC HON
PR: IDH 2010 or CI. This course is designed to emphasize a selected problem or issue that is meaningful and challenging to University Honors students and special populations. A variety of instructional approaches will be used. Topics will vary each semester. Repeatable for a total of 8 credits.

IDH 4950 Honors Program Project (3) HC HON
Enrollment is limited to 2 St. Petersburg Honors students who have completed at least one Honors 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 beyond the originality.

IDH 4970 Honors Thesis (3) HC HON
PR: Senior Honors Standing. The development and public presentation of a senior thesis under the direction of a mentor.

IDS 2664 Social Science Perspectives I SS (3) AS IAS
Provides an overview of the evolution and global expansion of Western Civilization. Examines global problems of economic growth and development, and geopolitical relations among nations and states, food supply and hunger, and environmental change.

IDS 2665 Social Science Perspectives II SS (3) AS IAS
Approaches the study of human behavior and society using the lens of various institutions. The course addresses issues of social stratification, economics, education, religion and social status. The course is not restricted to any major, has no lab section, and is not cross-listed.

IDS 2666 Historical Perspectives I HP (3) AS IAS
Approaches the study of human history through a series of specific case-studies that focus on historical processes. The primary focus of the course is to understand the variety of ways that the past has been brought to an understanding and understood in the present, rather than a comprehensive survey of a limited time or place.

IDS 2667 Historical Perspectives II HP (3) AS IAS
Approaches the study of human history through a series of specific case-studies that focus on how historians, both historians and non-historians, produce histories. The primary focus of the course is to understand the variety of ways that the past can be emplotted in histories, rather than a comprehensive survey of a limited time or place. With this understanding, students will produce several of their own histories.

IDS 2931 Selected Topics HP (2-5) AS IAS
Selected topics in the liberal arts. A basic introduction to the substance and theory of contemporary topics in the arts and sciences.

IDS 2932 Selected Topics HP (3) AS IAS
Selected topics in the liberal arts and sciences.

IDS 2933 Selected Topics III SS (3) AS IAS
Selected topics in the Liberal Arts. A basic introduction to the substance and theory of contemporary topics in the arts and sciences.

IDS 2934 Selected Topics IV SS (3) AS IAS
Selected topics in the Liberal Arts. A basic introduction to the substance and theory of contemporary topics in the arts and sciences.

IDS 3115 Values and Choices 6A MW (3) ED EDF
A in-depth examination of values and their relationship to choices in contemporary society using historical perspective and inquiry of moral/ethical dilemmas. Available to majors or non-majors.

IDS 3116 Scientific and Ethical Dimensions of Human Disease MW (3) AS IAS
PR: DPR. An interdisciplinary perspective of the biological basis of human disease combined with critical thinking and medical ethics. Basic concepts of human disease are integrated with bioethical dimensions of patient choice, physician responsibility and current health care issues.

IDS 3662 Arts Connections FA (3) VP FAI
This is an interdisciplinary course to the arts disciplines of music, dance, theatre, and art. Artists from the four disciplines will provide weekly presentations centered around issues and ideas that have formed the basis of their creative research. Influences of diversity, new technologies and community and public arts will be explored. This course will introduce students to the 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 Arts Issues AM (3) VP FAI
PR: Junior standing or CI. A discussion-based examination of cultural trends, educational policies, governmental regulations, and financial factors which impact Art, Dance, Music, and Theatre.

IDS 3664 Images of Contemporary Urban Culture 6A LW (3) AS IAS
Offers multiple perspectives on the vision, theories, and practices of contemporary urban culture through the use of various literary genres. Examines the cultural realities of contemporary urban life, such as social stratification, discontinuity, anonymity and poverty, as well as its many potentials such as creative energy, diversity, and relational networks. Must have enough credit hours required for exit course admittance.

IDS 3669 Cooperative Education (0) US COE
60 hours of academic credit, acceptance in Cooperative Education
IDS 4910 Community Research (1-4) AS CEL
PR: CEL Program approval. Repeatable up to 8 credit hours. To provide students with a community related research experience.

IDS 4942 Community Internship (1-4) AS CEL
PR: CEL Program approval. Repeatable up to 8 credit hours. To provide students with a community internship experience.

IDS 4949 Cooperative Education, Alternating (0) US COE
PR: 45+ semester hours completed, cumulative GPA 2.5+ and accepted in Cooperative Education Program. S/U only. Full-time (40 hrs/wk) paid, career-related work experience, on-site with an employer.

IDS 4955 International Community Research (1-2) AS CEL
PR: 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 4971 ISIS Inter-Area Studies (30) AS BIS
PR: ISS 4909, ISS 4939, ISSC 4909, ISSC 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 psychologists 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 2002 Introduction to International Relations (3) AS POL
Concepts and analytical tools applied to events such as politics among nations, control of foreign policies, types of actors, war and peace.

INR 3003 Introduction to International Studies (3) AS INT
An interdisciplinary study which stresses methods and analysis. A major portion will focus on the roles which different disciplines play in interpreting the international scene.

INR 3018 World Ideologies MW (3) AS INT
A course which details and examines the ideologies of today’s major architectural styles and their influence on contemporary design.

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 an analysis of government policies as a response to both domestic and international economic problems.

INR 3081 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, themes and issues.

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 3555 Overseas Study (1-6) AS INT
A program of individual or group research in a foreign country.

INR 4035 International Political Economy (3) AS POL
Analysis of the development and politics of the international economic system, focusing on questions of cooperation and conflict in trade, aid, and investment relationships.

INR 4083 Conflict In The World MW (3) AS INT
PR: Senior/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 4254 Africa in World Affairs MW (3) AS INT
An examination of Africa’s place and role in world affairs, including an analysis of the impact of external forces, international relations in post-colonial Africa, the relations of African states with the major world powers, the U.N. and its agencies.

INR 4403 International Law SS (3) AS POL
Examines essential components of the international legal system; recognition; succession; sea, air and space law, treaties, diplomats, International Court of Justice; laws of war, etc. Introduces the student to legal reasoning as employed in the international context.

INR 4502 International Organizations SS AF (3) AS POL
Study of the operations and structure of international organizations and effects on world politics; background and achievement of the UN; regional organizations and multi-national corporations.

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

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

INR 4931 Selected Topics (1-4) AS INT
Interdisciplinary studies with course content dependent on student demand and instructor’s interest.

INR 4936 Senior Seminar MW (3) AS INT
PR: International Student standing and senior standing. A variable topics seminar integrating concepts and analyses relating to the academic background of INT majors. Should be taken in the student’s final semester.

INR 4943 Internship in International Studies (3-6) AS INT
PR: Senior status. 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 5012 Globalization (3) AS INT
Examination of globalization’s impact on international relations, including literature from political science, anthropology, geography, sociology, and economics that impacts the study of the nation-state system and power. Open to majors and non-majors.

INR 5086 Issues in International Relations (3) AS POL
Sr./GS. Explores specific topics and provides the student with an opportunity for in-depth study of historical and contemporary problems in international relations.

ISC 1004 Integrated Natural Sciences I: Science that Matters NS (3) AS IDS
Discussion of integrative concepts in biology, chemistry, geology, and physics based on major knowledge strands of the Florida and Natural Science Education Standards. This course deals with current topics relevant to students, is inquiry based, and emphasizes development of higher order (critical thinking) skills through active learning strategies.

ISC 1005 Integrated Natural Sciences II: Science that Matters NS (3) AS IDS
Discussion of integrative concepts in biology, chemistry, geology, and physics based on major knowledge strands of the Florida and Natural Science Education Standards. This course deals with current topics relevant to students, is inquiry based, and emphasizes development of higher order (critical thinking) skills through active learning strategies.

ISC 4909 BiS Natural Sciences, Independent Study (15) AS BIS
S/U only.

ISM 3111 Information Systems in Organizations (3) BA QMB
PR: CGS 2100 or equivalent; ACG 2021; 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 3011 CP; ISM 3333 with a grade of “C” or better (not C-). Study of the techniques and procedures used in assessing information requirements, analyzing information flows and processing activities, and designing computer-based business information systems.

ISM 3232 Business Application Development (3) BA QMB
PR: ISM 3011 with a grade of “C” or better (not C-). Presentation of business applications development, demonstrating several forms of mathematical modeling and other management science techniques. Topics include data structures, indexing, file processing, and user interfaces. Good program design techniques are emphasized. Business applications are developed.

ISM 3431 Managing Information Resources Production/Operations Management Applications (3) BA QMB
PR: MAC 2233 or MAC 2241. Fundamentals of production operations management (POM) and fundamentals of management science (MS). The application of MS models in the solution of POM problems.

ISM 4133 Advanced Systems Analysis and Design (3) BA QMB
PR: ISM 3232, ISM 3113, ISM 4212, with grades of “C” or better (not C-). This course builds on previous work experience in systems development, with particular emphasis on the use of an integrated CASE tool on a team project. Students will gain an understanding of systems development problems and approaches using a variety of methods, such as, lectures, discussion, team presentations, guest speakers, demonstrations and computer use.

ISM 4141 Web Application Development/Java (3) BA QMB
PR: ISM 3232 with a grade of “C” or better (not C-). Java will be used to introduce object oriented concepts. Programming assignments cover a variety of application features including graphical user interface, database connectivity, multithreading, & client-server computing using Java and Java Server Pages.

ISM 4212 Database Design and Administration (3) BA QMB
PR: ISM 3113, ISM 3232, with grades of “C” or better (not C-). Principles of database design/administration for mainframe, micro, and client-server environments: inner structure, tuning, interfaces via state-of-the-art development languages and systems. Students gain hands-on experience by administering a database environment and completing assignments that involve database management, data administration, security, backup, recovery and database tuning issues.

ISM 4220 Business Data Communications (3) BA QMB
PR: ISM 3113, with a grade of “C” or better (not C-). Fundamentals of data communication, including network architectures, communication protocols, transmission standards and media access control methods.

ISM 4233 Information System Interface Design (3) BA QMB
PR: ISM 3232 with a grade of “C” or better (not C-). The fundamental concepts of human perception and cognition are studied in order to develop effective human-computer interfaces. Various types of interfaces are examined. Students will develop human-computer interfaces via state-of-the-art development languages and systems.

ISM 4234 Object-Oriented Design and Development (3) BA QMB
PR: ISM 3113, ISM 4212, with grades of “C” or better (not C-). This course presents an object-oriented approach to software development of business information systems. Students will learn to create object models of the business world and to develop information system designs based on these objects. The designs will be implemented by the use of the C++ or other OO programming languages.

ISM 4240 Distributed Operating Systems (3) BA QMB
PR: ISM 3232 with a grade of “C” or better (not C-). Introduction to distributed operating systems fundamentals such as distributed systems architecture, file structures, client-server, open systems, resource allocation, and basic tools for manipulating these operating environments.

ISM 4290 Senior Seminar in Information Systems (3) BA QMB
PR: ISM 3113, ISM 4212, with grades of “C” or better (not C-). A seminar covering advanced topics in systems management, analysis and design. Applications of these procedures to actual or hypothetical cases.

ISM 4300 Managing Information Resources (3) BA QMB
PR: ISM 3113, ISM 4212, ISM 4220, with grades of “C” or better (not C-). Current issues in information systems management focusing on organizational policies, procedures and standards for managing distributed computing resources.

ISM 4382 Global Information Systems (3) BA QMB
PR: ISM 3011 with a grade of “C” or better (not C-). Role of information technology in global business operations and challenges in building information systems to enable global operations.

ISM 4400 Decision Support Systems (3) BA QMB
PR: ISM 3200, ISM 3011, with a grade of “C” or better (not C-). Study of quantitative analysis tools and their use in organizational decision making. Emphasis on a structured approach to making complex business decisions, demonstrating several forms of mathematical modeling and other management science techniques.

ISM 4480 Electronic Commerce Systems (3) BA QMB
PR: ISM 3011 with a grade of “C” or better (not C-), MIS major or CC. This course is designed to familiarize students with the opportunities and challenges associated with electronic commerce, to explore the underlying technologies used in implementing electronic commerce systems, and to develop the practical skills needed to design and develop effective Web pages.

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

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

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

ISS 1101 Knowledge and Society SS (3) AS ISS
PR: Senior standing and ISS 3010 or CI. The seminar which caps the interdisciplinary major. Integrates the range of social science fields into a global interdisciplinary perspective. Views social institutions and issues from perspectives of changing paradigms.

ISS 3010 Introduction to the Social Sciences (3) AS ISS
PR: MAC 2233 or MAC 2241. Fundamentals of production operations management (POM) and fundamentals of management science (MS). The application of MS models in the solution of POM problems.

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

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
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 4936 Selected Topics (1-3) AS AFA
PR: CI plus senior standing or graduate status. Interdisciplinary studies with course content dependent on student demand and instructor’s interest.

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

ITA 1120L Beginning Italian Laboratory (1) AS WLE
CR: ITA 1120. A laboratory designed to offer additional practice using various instructional technologies and media.

ITA 1121 Beginning Italian II (4) AS WLE
CR: ITA 1121L. The second course in the study of elementary Italian. Emphasis is on the development of basic skills in comprehension, speaking and reading.

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

ITA 2200 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 2201 Intermediate Italian II (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 4100 Survey of Italian Literature I (4) AS WLE
A survey of Italian literature from the earliest monuments through the classicism of the 18th century.

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, sources of news, newsgathering, and writing techniques for various media. Typing ability is required.

JOU 3101 Advanced Reporting (3) AS COM
PR: JOU 2100 or RTV 3301 (RTV majors only). JOU 4200 (may be taken concurrently). PHI 1103 and POS 2041. Reporting and writing the more complex and specialized story. Techniques of investigative and analytical reporting, including ethical and legal considerations.

JOU 3308 Magazine Article and Feature Writing (3) AS COM
PR: CRW 2100 and JOU 2100. Planning, researching, writing, and marketing articles for general and special interest magazines and newspaper supplements. Experiences in developing article ideas and analysis of magazine articles.

JOU 3940 Reporting Practicum (1) AS COM
PR: JOU 3101 and CI. For journalism sequence majors. S/U only. Practical experience outside the classroom where the student works for academic credit under the supervision of a professional practitioner. Periodic written and oral reports to the faculty member coordinating the study.

JOU 4181 Public Affairs Reporting (3) AS COM
PR: JOU 3101 or RTV 3301 (RTV majors only), POS 2041 and POS 3112 or POS 3142. Covering city council meetings, courthouse, city hall, courts, society, and other special assignments. Emphasis is on coverage of major governmental units of all levels of government, including examination and interpretation of public documents and records.

JOU 4200 News Editing I (3) AS COM

JOU 4206 Newspaper and News Publication Design (3) AS COM
PR: JOU 4200 and CI. Theoretical applications of newspaper and new publication design, including typography, graphics, graphics software and electronic picture editing. Exercises in design for newspapers and news publications in both print and electronic formats.

JOU 4212 Magazine Design and Production (3) AS COM
PR: JOU 4200. Theoretical and practical application of design principles for magazines. Design software. Study of visual design, page architecture, typography, color and illustrations. Integration of design elements into the design of magazine covers. Design elements specific to magazine and production preparation.

JOU 4941 Editing Practicum (1) AS COM
PR: Senior standing, JOU 4200 and CI. For journalism sequence majors. S/U only. Practical experience outside the classroom where the student works for academic credit under the supervision of a professional practitioner. Periodic written and oral reports to the faculty member coordinating the study.

JOU 4944 Magazine Practicum (1) AS COM
PR: Senior standing and CI. For journalism sequence majors. S/U only. Practical experience outside the classroom where the student works for academic credit under the supervision of a professional. Periodic written and oral reports to the faculty member coordinating the study.

JOU 5105 Newswriting and Editing (3) AS WLE
PR: GS in Mass Communications or CI. Introduction to the basics of gathering, writing, and editing the news, with an emphasis on practical assignments done under professional conditions and standards. Discussions, readings emphasize the larger context and implications of news.

JOU 5305 Explorations in Newswriting (3) AS WLE
PR: CC. Students work to develop writing styles, reporting on and creating stories about significant issues, events, and ideas. The course explores the notion that narrative-style journalism can be accurate, thorough, fair, and compelling, effectively bringing readers into stories and giving them a bigger stake in the news. The focus is on-going beyond traditional practices of reporting and writing news stories.

JPN 1120 Modern Japanese I (4) AS WLE
CR: JPN 1120L. An intensive study of basic skills: pronunciation, listening comprehension, speaking, and sentences composition.

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

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

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

JPN 2200 Modern Japanese III (3) AS WLE
PR: JPN 1121 or equivalent. Continuing study to attain basic proficiency in Japanese.

JPN 2201 Modern Japanese IV (3) AS WLE
CR: 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 Teaching Writing in the Elementary School, Grades K-6 (3) ED EDE
PR: Elementary Education majors or CL. The purpose of this course is for students to understand children’s writing development and to design and implement instructional strategies for teaching composition in an integrated Language Arts curriculum.

LAE 4323 Methods of Teaching English: Middle School (3) ED EDE
May be taken one or two semesters prior to internship. Recommended to be taken with LAE 4464. Whole language methods of teaching reading, writing, speaking, listening, viewing, and critical thinking activities into a literature-based program for middle school students.

LAE 4335 Methods of Teaching English: High School (3) 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 4414 Teaching Literature in the Elementary School, Grades K-6 (3) ED EDE
CR: LAE 4414. Standing The purpose of this course is for students to survey and analyze the genres of children's literature and to develop instructional strategies to use literature in literacy learning across the curriculum.

LAE 4416 Teaching Literature and Writing in the Elementary Grades 6A LW (3) ED EDE
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Restrictions</th>
</tr>
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<tbody>
<tr>
<td>LAE 4464</td>
<td>Adolescent Literature for Middle and Secondary Students</td>
<td>3</td>
<td>ED EDT</td>
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<tr>
<td>LAE 4469</td>
<td>Teaching World Literature to Middle and Secondary Students</td>
<td>3</td>
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<tr>
<td>LAE 4540</td>
<td>Internship: English Education</td>
<td>1-12</td>
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<td>LAE 4936</td>
<td>Senior Seminar in English Education</td>
<td>2</td>
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<tr>
<td>LAE 5462</td>
<td>Young Adult and World Literature for New Teachers</td>
<td>3</td>
<td>ED EDT</td>
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<tr>
<td>LAE 5932</td>
<td>Selected Topics in the Teaching of English</td>
<td>3</td>
<td>ED EDT</td>
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<td>LAH 2020</td>
<td>Latin American Civilization HP AF</td>
<td>3</td>
<td>HTY</td>
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<tr>
<td>LAH 2734</td>
<td>Latin American History in Film HP AF</td>
<td>3</td>
<td>HTY</td>
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<tr>
<td>LAH 3130</td>
<td>Colonial Latin America</td>
<td>4</td>
<td>HTY</td>
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<td>LAH 3200</td>
<td>Modern Latin America</td>
<td>4</td>
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<td>LAH 3430</td>
<td>History of Mexico</td>
<td>4</td>
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<tr>
<td>LAH 3470</td>
<td>History of the Caribbean</td>
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<tr>
<td>LAS 3004</td>
<td>The Americas - Latin and Caribbean</td>
<td>3</td>
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<td>LAS 3116</td>
<td>Latin America Through Film AF</td>
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<td>LAT 1120</td>
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<td>Beginning Latin II</td>
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<td>Intermediate Latin I</td>
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<td>LAT 3801</td>
<td>Language and Meaning</td>
<td>3</td>
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<td>LIN 3570</td>
<td>English Grammar and Usage</td>
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<td>LIN 3901</td>
<td>Language and Meaning 6A</td>
<td>3</td>
<td>AS WLE</td>
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<td>LIN 4040</td>
<td>Descriptive Linguistics</td>
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<td>AS WLE</td>
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<td>LIN 4050</td>
<td>Introduction to Linguistics</td>
<td>3</td>
<td>AS WLE</td>
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<tr>
<td>LIN 4575</td>
<td>Language Types of the World</td>
<td>3</td>
<td>AS INT</td>
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<td>LIN 4600</td>
<td>Language and Society</td>
<td>3</td>
<td>AS WLE</td>
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<td>LIN 4680</td>
<td>Structure of American English</td>
<td>3</td>
<td>AS ENG</td>
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<td>LIN 4903</td>
<td>Directed Reading</td>
<td>1-3</td>
<td>AS WLE</td>
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<td>LIN 5700</td>
<td>Applied Linguistics</td>
<td>3</td>
<td>AS WLE</td>
</tr>
<tr>
<td>LIS 2001</td>
<td>Library and Information Skills</td>
<td>3</td>
<td>AS LIS</td>
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</tbody>
</table>

Area study courses are multi-disciplinary in nature and deal with countries and cultures other than the United States. Each course combines some measure of political, economic, historical, religious, geographic, anthropological, and sociological analysis in dealing with salient features and current problems.

This is a telecourse that is designed to introduce the complexities of Latin America and the Caribbean to students in the U.S. (Open University - televised course).

This course will use film, video, selected readings, and lectures to teach the interested student about Latin America.

An introductory course in Latin grammar with appropriate readings.

A survey introduction to 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.

An analysis of the interrelation of a language and the structure of the society using it, the linguistic behavior patterns characteristic of particular social, political, economic, educational, and racial groups. Problems in communication between strata.

A course primarily using the sentence diagram to present a detailed analysis of the parts of speech, verb tenses, sentence functions, and other basic grammatical classifications of traditional English grammar.

This is a telecourse that is designed to introduce the complexities of the history of the Latin American states.

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.

A 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.

An analysis of the interrelation of a language and the structure of the society using it, the linguistic behavior patterns characteristic of particular social, political, economic, educational, and racial groups. Problems in communication between strata.
LIT 3101 Literature of the Western World Through the Renaissance
A study in English of the great works of Western Literature from the
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
A study in English of the great works of Western Literature from the
Neoclassic to the Modern Period, including such writers as Moliera, Racine, Voltaire, Dostoeyevsky, Chekhov, Ibsen, Kafka, Gide, Sartre, and Camus, among others.

LIT 3103 Great Literature of the World
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.

LIS 5315 Instructional Graphics (3) AS LIS
The ethical aspects, planning and production of instructional graphic material. The theory of graphic communications. Interpreting needs for instructional materials appropriate for given behavioral objectives. PR: Basic knowledge of Latin. Readings in Catullus. Study of the ideas and artistry of this Roman historian.

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.

LIT 3144 Modern European Novel
A study of the novel from the eighteenth century to the present. Thematic focus includes self, marriage, sexuality, madness, race and generations. Writing may also be offered under this title. May be taken twice for credit with different topics. Will not be counted toward the English major.

LIT 3155 Modern Literature
A study of the novella from the nineteenth century to the present. 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 3202 Introduction to Literature 6A HP (3) AS ENG
The nature and significance of literature in its various forms: fiction, drama, poetry; emphasis on the techniques of reading literature for informed enjoyment. Writing intensive. Will not be counted toward the English major.

LIT 3203 Introduction to Poetry 6A HP (3) AS ENG
A survey of the history of poetry; approached from an historical perspective through not restricted to any historical period. Will not be counted toward the English major.

LIT 3204 Introduction to Drama 6A HP (3) AS ENG
A survey of the major forms of drama as literature and theatre; approached from an historical perspective though not restricted to any historical period. Will not be counted toward the English major.

LIT 3222 Modern Short Novel HP (3) AS ENG
A survey of the novella from the nineteenth century to the present. Writers include James, Dostoeyevsky, Camus, Styron, Nabokov, Gardner, Roth, Vonnegut, among others.

LIT 3374 The Bible As Literature MW (3) AS ENG
A study of the Bible as literature; its historical, literary, and cultural contexts; the role of the Bible in Jewish and Christian culture; the Bible as literature and its influence on modern literature. May be taken twice for credit with different topics. May be counted toward the English major.

LIT 3383 The Image of Women in Literature MW (3) AS ENG
A study of the history of women in literature; the changing role of women, to examine ideas about women’s roles, and to compare/contrast cultural/racial images of women. Will not be counted toward the English major.

LIT 3410 Religions and Existential Themes MW (3) AS ENG
A study of the Bible as literature; its historical, literary, and cultural contexts; the role of the Bible in Jewish and Christian culture; the Bible as literature and its influence on modern literature. May be taken twice for credit with different topics. May be counted toward the English major.

LIT 3451 Literature and the Occult MW (3) AS ENG
A study of the occult tradition as a major ingredient in modern literature; its historical, social, psychological, philosophical, religious, etc. documents. Topics and works vary. Will not be counted toward the English major.

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

LIT 4386 British and American Literature by Women MW (3) AS ENG
A study of British and American literature by women; will be given for credit with different topics. Topics and works vary. Will not be counted toward the English major.

LIT 4804 Literature as Cultural Study MW (3) AS ENG
A study of literary texts as cultural artifacts. Literary texts as historical, social, political, psychological, philosophical, religious, etc. documents. Topics and works vary. Will not be counted toward the English major.

LIT 4930 Selected Topics in English Studies MW (3) AS ENG
A study of the content of courses will be governed by student demand and instructor interest. It will examine in depth a recurring literary theme or the work of a small group of writers. Special courses in writing may also be offered under this title. May be taken twice for credit with different topics. Will not be counted toward the English major.

LNW 4381 Livy (4) AS WLE
PR: Basic knowledge of Latin. Readings in the ideas and artistry of this Roman historian.

LNW 4543 Catullus (4) AS WLE
PR: Basic knowledge of Latin. Readings in Catullus. Study of...
techniques and tradition in Roman lyric poetry.

**MAC 4504 Theory of Computation 6A (3) AS MTH**
- Decidability. Inductive definition of functions and basic computable languages. Introduction to computational complexity.
- MAD 5101 LISP: Programming With Algebraic Applications (3) AS MTH
- PR: MHF 5306 or MAD 6510 or MAS 5311 or CI. Programming in LISP. Functional languages, foundations of Lambda Calculus and algebraic applications (theorem proving and game playing).
- **MAC 5306 Real Analysis I (3) AS MTH**
- PR: MAA 4211. Riemann-Stieltjes integrals, uniform convergence, Fourier series, Lebesgue integrals, conditional convergence on R.
- **MAC 5307 Real Analysis II (3) AS MTH**
- **MAC 5401 Numerical Analysis 6A (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.
MAN 4326 Teaching Elementary School Mathematics II (3) ED EDE
PR: MAE 4310. Provides for the development of knowledge and skill necessary to prepare students in course roles as teachers of mathematics in elementary and special education classes. Required in the undergraduate programs in Elementary Education.

MAN 4330 Teaching Senior High School Mathematics (3) ED EDE
PR: Admission to Mathematics Education program or DPR. Techniques and materials of instruction in mathematics. Students are expected to observe 20 hours in high schools.

MAN 4551 Reading the Language of Mathematics (3) ED EDE
PR: Admission to Mathematics Education program or DPR. The course provides the prospective secondary math teacher the opportunity to develop concepts, skills and instructional procedures for effectively integrating communication (reading, writing, listening, speaking) into the math curriculum. Required under Math Ed. program.

MAN 4652 Technology for Teaching Secondary School Mathematics I (3) ED EDE
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.

MAN 4653 Technology for Teaching Secondary School Mathematics II (3) ED EDE
PR: Admission to Mathematics Education program or DPR. This course prepares secondary mathematics education majors to be proficient with hand-held technologies such as: graphing calculators, symbolic manipulators, calculator based laboratory systems and hand held geometric drawing tools.

MAN 4909 Directed Study: Mathematics Education (1-3) ED EDE
PR: Senior Standing and CI. To extend competency in teaching mathematics.

MAN 4936 Senior Seminar in Mathematics Education (2) ED EDE

MAE 4940 Internship: Mathematics Education (1-12) ED EDE
CR: MAE 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.

MAE 5875 Abstract Algebra for Teachers (3) AS MTH
PR: MAS 3105 and MAS 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.

MAN 3025 Principles of Management (3) BA MAN
PR: Junior standing. Examines intrapersonal, interpersonal, group/ team, organizational, and environmental (all stakeholder and societal) factors influencing the management task.

MAN 3240 Organizational Behavior Analysis (3) 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 analysis, manpower planning, selection, performance evaluation, training, and wage and salary administration.

MAN 3401 Industrial Relations (3) 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 experimental 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 translation of theoretical concepts 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 assessment 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 system.

MAN 4434 Operations Management: A Systems Approach (3) BA QMS
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 problems situations.

MAN 4507 Operation Production Systems (3) BA QMB
PR: MAN 4504 or CI. Study of closed loop production planning and control systems. Master production planning, inventory management, material requirements planning, capacity management, production activity. Relationship to organizational effectiveness.

MAN 4600 International Management (3) BA MAN
PR: MAN 3025, Senior Standing or CI. Examines the effects of international cultural differences on business practices within and outside the United States and provides methods to build synergies and establish/enhance competitive advantage via those differences.

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 students needs 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 study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor.

MAP 2302 Differential Equations 6A (3) AS MTH
PR: MAC 2283 or MAC 2311. First order linear and nonlinear differential equations, higher order linear equations, applications.

MAP 3516 Ordinary Differential Equations I (3) AS MTH
PR: MAP 2302 and MAA 4211, or CI. Existence and uniqueness theory, properties of solutions, linear systems, stability theory. Sturm-Liouville theory.

MAP 3517 Ordinary Differential Equations II (3) AS MTH
PR: MAP 3516 and MAA 5307 or CI. Topics selected from fixed point theory, comparison theory, oscillation theory, Poincare-Bendixson Theory, Lyapunov functions, eigenfunction expansions.

MAP 5345 Applied Partial Differential Equations (3) AS MTH
PR: Vector spaces of variables, the heat equation, wave equation, Laplace's equation, classification, Green's functions with emphasis on applications.

MAP 5407 Methods of Applied Mathematics (3) AS MTH
PR: MAP 2302 or CI. Sophisticated management theory. Fourier series, Green's functions, matrix methods for linear systems of ordinary differential equations, and topics from calculus of variations, control theory, numerical solutions of differential equations.
MAR 2931 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: Junior standing. Survey of the marketing of goods and services within the economy. Attention is paid to the impact of marketing on other functional areas of business as well as society.

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.

MAR 3613 Marketing Research (3) BA MKT
PR: GMB 2100, 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 institutional principles and methods and the application of quantitative techniques used in establishing and controlling customer service levels.

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 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. 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 the 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, management, research and promotional practices, marketing policies and strategies.

MAR 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.

MAR 4824 Marketing Management Problems (3) BA MKT
PR: Senior Standing, MAR 3023, MAR 3613, MAR 4333. The integration of marketing knowledge applied to decision roles in managing the total marketing effort of firms, and coordination with other functional areas on specific problems.

MAR 4903 Independent Research (1-3) BA MKT
PR: CI. Individual study contract with instructor and department chairperson required. The research project will be mutually agreed upon by the instructor and student, and is limited to 6 semester hours.

MAR 4905 Independent Study (1-3) BA MKT
PR: CI. S/U only. Specialized independent study determined by the students’ needs and interests.

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

MAS 3105 Linear Algebra 6A (4) AS MTH
PR: MAC 2311 and either MAC 2311 or MAC 2313. Linear systems, matrix algebra, vector spaces, linear independence, inner product spaces, Gram-Schmidt algorithm, linear transformations and matrix representations, determinants, eigenvectors, diagonalization, quadratic forms.

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

MAT 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.

MAT 4301 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.

MAT 5107 Advanced Linear Algebra (3) AS MTH

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

MAS 5311 Algebra I (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 in Mathematics 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 document 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 CI. S/U only. Course restricted to mathematics majors.

MCR 5932 Selected Topics (1-4) AS MTH
PR: CI. Each course covers a single topic outside the usual curriculum.

MCB 3020C General Microbiology (4) AS BIO
PR: BSC 2100, BSC 2101, BSC 2111, and CHM 2210. Genetics is recommended. Introduction to the biology of microorganisms: structure and physiology, ecology and epidemiology; microorganisms of disease; microorganisms of disease. Lab.

MCB 4115 Determinative Bacteriology (5) AS BIO
PR: MCB 3020C. 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 3020C and CP, 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 4404C Microbial Physiology and Genetics Laboratory (1) AS BIO
CR: MCB 4404C. Laboratory portion of Microbial Physiology and Genetics relating to biochemical characteristics and metabolic capabilities of a variety of microorganisms.

MCB 4502C Virology (3) AS BIO
PR: MCB 3020C. 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: CC. For B.S. Microbiology majors only. S/U only. Individual investigation with faculty supervision.

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 3020C, CI. A comprehensive survey of pathogenic microbes responsible for disease in man and other animals and the impact of these infectious agents on the public health. These pathogens will be studied with respect to their morphology, cultivation, mechanisms of pathogenicity, laboratory diagnosis, and epidemiology.

MCB 5555 Applied and Environmental Biology (3) AS BIO
PR: MCB 3020C. A study of the applications of microbiology to the food/beverage industry, agriculture, public health and bioremediation. This course is a microbiology elective and has a mandatory field trip.

MCB 5815 Medical Mycology (3) AS BIO
PR: MCB 3020C or CI. A modern biological survey of the medically important fungi (yeasts and molds) important to microorganisms 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 analysis; instrumentation.

MGF 1106 Finite Mathematics 6A QM (3) AS MTH
PR: C (2.0) or better in MAT 1033, or 440 or better SAT Math score, or 72 or better ACT Math score, or 36 or better ACT Composite score. Concepts and analytical skills in areas of logic, linear equations, linear programming, mathematics of finance, permutations and combinations, probability, and descriptive statistics.

MGF 1107 Mathematics for Liberal Arts 6A QM (3) AS MTH
PR: C (2.0) or better in MAT 1033, or SAT/ACT score, or Placement Exam score. This terminal course is intended to present topics which demonstrate the beauty and utility of mathematics to the general student population. Among the topics which might be included are: Financial Mathematics, Linear and Exponential Growth, Numbers and Number Systems, Elementary Number Theory, Voting Techniques, Graph Theory, and the History of Mathematics.

MGF 1116 Mathematical Experience 6A (3) AS MTH
PR: Two years of high school algebra. Introduction to some important and interesting basic ideas in mathematics with an emphasis on a mathematical way of thinking. Concepts such as definitions, axioms and proofs are explained. Topics from number theory, combinatorics, algebra and geometry are used. Some topics are topics which are prevalent in their historical development and their impact on the development of mathematics is discussed.

MGF 1131 Chaos and Fractals 6A QM (3) AS MTH
PR: C (2.0) or better in MAT 1033, or 440 or better SAT Math score, or 72 or better ACT Math Score, or 36 or better ACT Composite score. Computer experiments in the behavior of functions under iteration: periodicity, attractors, stability, complex numbers, Cantor set, fractional dimension, sensitive dependence.

MGF 3301 Bridge to Abstract Mathematics 6A QM (4) AS MTH
CP: MAC 2313 or MAC 2283. Techniques and logic of the construction of proofs. Topics will be selected from propositional logic, set theory, relations, functions, number theory, equivalence relations, Boolean algebra, cardinality, and limits.

MHF 4403 The Early History of Mathematics 6A MW (3) AS MTH
PR: MAC 2312 and upper-level standing. A study of the history and development of mathematics and its cultural impact from the formation of number systems to the Renaissance.

MHF 4406 The History of Modern Mathematics 6A MW (3) AS MTH
PR: MAC 2313. Traces the development of mathematical ideas in Western culture.

MHF 5306 Mathematical Logic and Foundations I (3) AS MTH
PR: MAS 4301 or CI. Two-course sequence covering: predicate calculus and classical model theory; transfinite set theory and the system ZFC; recursion and decidability.

MHF 5402 The Early History of Mathematics (3) AS MTH
PR: MAC 2312 A study of the history and development of mathematics and its cultural impact from the formation of number systems to the Renaissance.

MHF 5405 History of Modern Mathematics (3) AS MTH
PR: MAC 2313. Traces the development of mathematical ideas in Western culture. Special emphasis is placed on those concepts which led to the Calculus. This course is open to majors and non-majors alike.

MHS 3411 Multidisciplinary Behavioral Healthcare Services (3) FM MHS
PR: CI or Junior Standing minimum. Working in behavioral healthcare requires the application of specific knowledge and skills. This open enrollment course offers a practical multidisciplinary look at service delivery. Students will examine clinical, educational, and training aspects of their career and educational goals. Students will develop a personal plan for earning entry-level and advanced healthcare workforce positions.

MHS 4002 Behavioral Health Systems Delivery (3) FM MHS
PR: MHS 3411 This course is designed to provide students with an understanding of the significant issues and trends in behavioral health delivery systems in America. Four major areas will be emphasized: 1) history and legislation; 2) systems delivery; 3) programs and policies; 4) selected at-risk populations. This course is not repeatable for credit and is open to non-majors in behavioral healthcare.

MHS 4052 Human Relations Skills in Counseling MW (4) ED EDG
Introduction to the theory of human relations dynamics and development of skills required for effective interpersonal relations. Lecture sessions and experiential training.

MHS 4407 Exemplary Practices in Behavioral Healthcare Treatment (3) FM MHS
PR: MHS 3411 This course explores exemplary clinical practices in public behavioral health service delivery. Best or exemplary practices are defined as those that have both a track record and their efficacy has been empirically validated. Modules may begin with a historical perspective of the treatment of a specific population or treatment strategy but will primarily focus on emerging methodologies.

MHS 4829 Field Experience in Behavioral Healthcare (3) FM MHS
PR: MHS 4407. MHS 4407 This experiential class allows the student to observe and participate with multidisciplinary staff of a provider agency. The student will attend team meetings, observe individual, group, and case management services. Assignments will be made to maximize the student’s time investment in the field. Observations and experiences will be discussed in biweekly class meetings.

MHS 4904 Directed Study (1-4) FM MHS
Directly study. Student must have a contract with an instructor.

MHS 4905 Independent Study: Guidance and Counseling Education (1-4) ED EDG
PR: DPR. S/U only. Specialized independent study determined by the student’s needs and interests.

MHS 4931 Selected Topics (1-4) FM MHS
The course content will depend on student demand and instructor’s interest. The course may be repeated for different topics up to 8 hours.

MLS 4031 Introduction to Medical Technology (2) AS IAS
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on principles and methods of medical technology, including professional ethics, safety regulations, quality control, phlebotomy, medical terminology, laboratory math, and computer applications.

MLS 4860 Clinical Urinalysis and Body Fluids (2) AS IAS
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on laboratory methodology and diagnosis using urine and other fluids such as semen, spasm, pleural, peritoneal, and joint fluids.

MLS 4861 Clinical Immunology (2) AS IAS
PR: Senior standing and acceptance into an approved affiliated
hospital. A hospital clinical course on the tissues, cells, and molecules of the human immune system, emphasizing the detection of serum antibodies and disease states.

**MLS 4862 Clinical Hematology (6) AS IAS**
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course emphasizing pathogenesis responsible for diseases in man, including morphologic, physiologic, and laboratory diagnosis of bacteria, fungi, parasites, and viruses.

**MLS 4863 Clinical Microbiology (6) AS IAS**
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on cellular components of the blood as related to laboratory diagnosis and disease, including blood coagulation and morphological and biochemical aspects of blood cells.

**MLS 4864 Clinical Chemistry (6) AS IAS**
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on the chemical substances found in the body as related to the diagnosis of human disease, including topics such as instrumentation, electrophoresis, therapeutic drug-monitoring assays, tumor markers, and toxicology.

**MLS 4865 Clinical Immunohematology (6) AS IAS**
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on blood and tissue typing, including blood group systems, transfusion associated diseases, HLA testing, and preparation of blood and blood components for transfusion therapy.

**MLS 4866 Clinical Laboratory Management and Education (1) AS IAS**
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on concepts of laboratory management, including personnel staffing, reimbursements, quality assurance, and regulatory issues, and clinical education techniques, including writing, lecture presentation, and evaluation.

**MMC 2100 Writing for the Mass Media (3) AS COM**
PR: Sophomore standing; 2.75 overall grade point average; grade of "C" in ENC 1101, ENC 1102, and passing score on English Diagnostic Test. An introduction to the basic skills of writing for the mass media with practice in library research, persuasive writing, and informational writing.

**MMC 3602 Mass Communications and Society SS HP (3) AS COM**

**MMC 4123 Media Script Writing (3) AS COM**
PR: MMC 2100 and MMC 3602. An introduction to the techniques of writing scripts for electronic media. Emphasis is on documentary presentation.

**MMC 4300 History and Principles of Communications Law (3) AS COM**
PR: MMC 2100 and MMC 3602. Historical and constitutional backgrounds of freedom and control of expression, statutory environments, major court decisions, and administrative rulings which affect print media, telecommunications, advertising, public relations, and new media.

**MMC 4203 Communication Ethics (3) AS COM**
PR: MMC 2100 and MMC 3602 or CI. A study of the fundamental principles and philosophy of ethics and their application to the decision-making process in the various professions of mass communications.

**MMC 4420 Research Methods in Mass Communications (3) AS COM**
PR: MMC 2100 and MMC 3602. An introduction to the theory and practice of quantitative and historical research methods as applicable to the study of media and mass communications. Emphasis on survey research, evaluation of data, and report writing.

**MMC 4900 Directed Reading in Mass Communications (1-3) AS COM**
PR: Junior standing and CI. Reading and directed study in special topics.

**MMC 4910 Individual Research in Mass Communications (1-3) AS COM**
PR: Junior standing and CI. The course provides means for a student to do independent study in an area not covered by a numbered course.

**MMC 4936 Selected Topics in Mass Communications Studies (1-3) AS COM**
PR: MMC 2100, MMC 3602 and CI. Courses designed to meet current or specific topics of interest to instructors and students.

**MMC 4945 Media Internship-Seminar (3) AS COM**
PR: CI and 15 hours in Mass Comm, courses and completion of an 8-12 week paid media internship with newspaper, broadcast station, or other media-related agency approved by the School. S/U only. Reports on experiences for discussion and evaluation.

**MML 1001C Foundations of Officerhood (2) US MIS**
Examines the unique duties and responsibilities of officers, commissioning and role of the Army, review skills pertaining to fitness and communication, analyze Army values and expected ethical behavior. Lec.-Lab.

**MML 1002C Basic Leadership (2) US MIS**
Prereq. Presents fundamental leadership concepts and doctrine, practice basic skills that underlie effective problem solving, examine the officer experience. Lec.-Lab.

**MML 2101C Individual Leadership Studies (2) US MIS**
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course emphasizing pathogens responsible for diseases in man, including morphologic, physiologic, and laboratory diagnosis of bacteria, fungi, parasites, and viruses.

**MML 2102C Leadership and Teamwork (2) US MIS**
Focuses on self-development guided by knowledge of self and group processes, challenges current beliefs, knowledge, and skills.

**MML 2900 Army Physical Readiness (1) US MIS**
This course will train students in the unique role of Army physical readiness in sustaining military operations. It will also prepare students to plan, prepare, and conduct military fitness training. Repeatable for 8 semesters, but only 4 credit hours will be counted toward the program.

**MML 2901 Basic Leader Training (4) US MIS**
PR: CI. A 35 day internship at Fort Knox, Kentucky that incorporates a wide range of management techniques designed to develop and evaluate leadership and officer potential. The course is intentionally stressful and designed to build individual confidence through the accomplishment of tough and demanding training. Students completing the course may qualify for entry into the ROTC Advanced Course.

**MML 3201C Leadership and Problem Solving (3) US MIS**
Examines skills that underlie effective problem solving, analyze military missions and plan military operations, execute squad battle drills.

**MML 3202C Leadership and Ethics (3) US MIS**
Probes leader responsibilities that foster an ethical command climate, develop cadet leadership competencies, apply principles and techniques of effective written and oral communication.

**MML 4301C Leadership and Management (3) US MIS**
Discuss staff organization, functions, and processes, analyze counseling responsibilities and methods, and apply leadership and problem solving principles to a complex case study/simulation.

**MML 4302C Officerhood (3) US MIS**
Capstone course to explore topics relevant to second lieutenants entering the Army, describe legal aspects of decision making and leadership, analyze Army organization from tactical to strategic level.

**MML 5300 Advanced Directed Study and Research (1-3) US MIS**
PR: CI and permission of Professor of Military Science. Intensive individual study in a particular aspect of military science that is not covered in regular course offerings. Request for enrollment must be made prior to registration in the form of a written proposal.

**MTG 3212 Geometry 6A (3) AS MTH**
PR: MAC 2311. No credit towards Mathematics major. Emphasis on axiomatics, advanced Euclidean geometry, elements of projective geometry, non-Euclidean geometry.

**MTG 4214 Modern Geometry 6A (3) AS MTH**
CP MAS 4301 or CI. Topics will be selected from modern plane geometry, Mobius geometry, elliptic and hyperbolic geometry.

**MTG 4302 Topology I (3) AS MTH**

**MTG 5256 Differential Geometry (3) AS MTH**
PR: MAA 4211, MAS 3105. Exterior calculus, differentiable manifolds, integration of differential forms, surfaces in 3-space, covariant derivative, curvature, matrix groups.

**MTG 5316 Topology I (3) AS MTH**

**MTG 5317 Topology II (3) AS MTH**
PR: MTG 5316. The fundamental group; elements of homotopy theory and homology theory.

**MUC 2221 Composition (3) VP MUS**
MUE 331 Composition (3) VP MUS
PR: Necessary competency at junior level determined by faculty jury. DPR. Private instruction in original composition. Required of composition majors.

MUE 3401 Electronic Music-Analog Synthesis I (3) VP MUS
PR: MUC 3401 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.

MUE 3402 Electronic Music-Analog Synthesis II (3) VP MUS
PR: MUC 3401 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.

MUE 3441 Electronic Music-Digital Synthesis I (3) VP MUS
PR: MUC 3401 or MUC 3402 and DPR. Computer assisted composition for conventional instruments; composition for tape medium with computer controlled analog synthesizers; direct digital synthesis; digital systems design and construction.

MUE 3442 Electronic Music-Digital Synthesis II (3) VP MUS
PR: MUC 3401 or MUC 3402 and DPR. Computer assisted composition for conventional instruments; composition for tape medium with computer controlled analog synthesizers; direct digital synthesis; digital systems design and construction.

MUC 4241 Composition (3) VP 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) VP MUS
PR: MUC 3402 and MUC 3442 or equivalent. DPR. Composition for analog/digital equipment, performance applications: sound synthesis, interfacing electronics with conventional instruments.

MUC 4404 Electronic Music-Real-Time Performance II (3) VP MUS
PR: MUC 3402 and MUC 3442 or equivalent. DPR. Composition for analog/digital equipment, performance applications: sound synthesis, interfacing electronics with conventional instruments.

MUC 4620 Jazz Composition (3) VP MUS
PR: MUT 3354 and/or DPR. Private instruction in original jazz composition. Required of All Jazz Studies Comp. majors, minimum six of hours.

MUC 5625 Jazz Composition (2) VP MUS
PR: CI. Required of all composition majors. Private instruction in original composition.

MUE 2090 Theoretical Bases Of Music Education (3) VP MUS
PR: DPR. The course is designed to investigate music education practices in schools. Through the course and information offered in this course a student will be able to determine his/her commitment to professional music education.

MUE 3421 Choral Techniques and Pedagogy (1) VP MUS
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 Wind Techniques and Pedagogy (2) VP MUS
PR: MUG 3104 A two-semester sequence intended to equip music education students with basic performance, pedagogical, and rehearsal techniques, applicable to brass and woodwind instruments and ensembles.

MUE 3431 String Techniques and Pedagogy (1) VP MUS
PR: DPR. A study of orchestra materials, in a laboratory setting, appropriate to elementary and secondary school music programs. Course content will change each semester.

MUE 3930 Music Education Forum (1) VP MUS
PR: Status as a music education major; permission of the Music Advisor. Discuss MusEd professional organizations (MENC, CMENC, ISME, etc.). Students join CMENC and attend the FMEA convention. Add topics; classroom management, school safety, professional ethics, education law, and MusEd for special students. Required for MusEd majors 4 semesters @ 1 credit hour per term.

MUE 4210 Music For The Child (3) VP 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.

MUE 4311 K-12 General Music Methods and Practicum (4) VP MUS
PR: MUE 2090 This course will consist of theoretical and practical training in teaching General Music Education K-12. It will include the study of philosophies, strategies and methodologies in contemporary General Music Education used in the USA and internationally.

MUE 4311 Choral Methods In The Secondary School (3) VP MUS

MUE 4332 Instrumental Music In The Secondary School (3) VP MUS

MUE 4480 Special Ensembles Methods (2) VP MUS
This course is restricted to majors and is repeatable for up to 6 credits.

MUE 4936 Senior Seminar In Music (2) VP MUS
CR: MUE 4940. DPR. Synthesis of teacher candidate’s courses in complete college program. Required concurrently with internship.

MUE 4940 Internship: Music Education (6-10) VP MUS
CR: MUE 4936. S/U only. DPR. One full semester of internship in public or private elementary and secondary schools. Restricted to majors. May not be repeated for credit.

MUE 5104 Basic Conducting (2) VP MUS
PR: DPR. The study and practical application of basic conducting techniques. Development of skills related to the conducting of musical scores.

MUE 5162 Instrumental Conducting (2) VP MUS
PR: MUT 3354 and DPR. A study of those techniques of conducting unique to instrumental music ensembles: baton technique, score reading, terminology, rehearsal management.

MUE 5191 Folk And Traditional Music Of World Cultures FA AF (3) VP MUS
A comparative survey of the stylistic traits and functions of the folk and traditional music, both sacred and secular, of diverse Western and non-Western cultures. For non-majors; may be taken by majors as an elective with departmental approval.

MUE 2632 Music In The United States FA (3) VP MUS
Designed for majors and non-majors, this course will use live performances, videotapes, and recordings to illustrate music as practiced in America from Colonial to present times. Included in the course will be study of the contributions of various ethnic/minority groups, and discussions of the relevant social issues connected with these contributions.

MUE 3016 Survey Of Jazz FA (3) VP MUS
For non-music majors. Not repeatable. A study of the evolution of America’s “classical” music: Jazz. In addition to presenting an overview of the most prominent artists and literature, the course will focus on the cultural dynamics involved in the development of jazz from 1890 to the present.

MUE 3300 Music History/Medieval And Renaissance (2) VP MUS
PR: DPR. Required of music majors with DPR. A study of the historical development of musical styles of the Medieval and Renaissance periods and of the music of those periods.

MUE 3301 Music History/Baroque And Classic MW (3) VP 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.

MUE 3302 Music History/Romantic And 20th Century MW (3) VP 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.

MUE 4058 Intercultural Music In The Twentieth Century MW (3) VP MUS
PR: MUE 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.

MUE 4061 History Of Jazz (3) VP MUS
PR: MUE 1112, DPR. An in-depth study of the historical development of Jazz, including the representative musical literature and sociological implications.

MUE 4110 Introduction To Music Literature 6A HP FA (3) VP MUS
PR: MUT 1112, DPR. A survey of representative music exemplars of the past and present with emphasis on the study of styles and form. Required for music majors.

MUE 3001 Issues In Music FA AF (3) VP MUS
Open only to non-music majors. Lectures and live performances
by artist faculty of significant works from the literature for the piano; analysis and in performance in the abstract and aesthetic elements in music which vitally concern the artist-performer.

**MUL 3012 Music in Your Life** (3) VP MUS
Open only to non-music majors. A study in the art of music and its analytical techniques to develop an understanding of basic principles of music and a technique for listening to music.

**MUN 1100 University Pep Band** (1-3) VP 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) VP MUS
This course provides performance experiences with the Marching Band. The course is open to any major area.

**MUN 3143 Wind Ensemble** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.

**MUN 3213 University Orchestra** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.

**MUN 3313 University Singers** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.

**MUN 3343 Chamber Singers** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.

**MUN 3383 University-Community Chorus** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and piano.

**MUN 3411 String Quartet** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and piano.

**MUN 3421 Flute Choir** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and piano.

**MUN 3422 Woodwind Quintet** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and piano.

**MUN 3431 Brass Quintet** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and piano.

**MUN 3432 Horn Quartet** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and piano.

**MUN 3433 Brass Choir** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and piano.

**MUN 3443 Percussion Ensemble** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and piano.

**MUN 3444 Marimba Ensemble** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and piano.

**MUN 3453 Piano Ensemble** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.

**MUN 3473 Collegium Musicum** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments, and piano.

**MUN 3713 Jazz Ensemble** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.

**MUN 3714 Jazz Chamber Ensemble** (1) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.

**MUS 1100 University Pep Band** (1-3) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and piano.

**MUS 2201 Language Diction For Singers** (1) VP MUS
PR: DPR. Required of voice performance majors. Specialized study in Language Diction for Singers. Specific language varies, to be arranged at each course offering.

**MUS 4900 Directed Reading** (1-3) VP MUS
PR: DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments.

**MUS 4935 Music Senior Seminar** (1) VP MUS
PR: DPR. Independent studies in the various areas of music; course of study and credits must be assigned prior to registration.

**MUS 4936 Music Senior Seminar** (1-4) VP MUS
PR: DPR. Independent studies in the various areas of music; course of study and credits must be assigned prior to registration.

**MUS 1001 Rudiments Of Music** (2) VP MUS
S/U only. This course is required whenever a student registers for music majors. The requirement for the successful completion of the course is attendance at ten (10) department-approved recitals/concerts throughout the semester.

**MUS 1011 Music Theory I** (3) VP MUS
PR: DPR. Required of music majors; development of skills in perceiving and writing music through the use of aural and visual analysis and examples from all historical periods of music literature.

**MUS 1012 Music Theory II** (3) VP MUS
PR: MUT 1111, DPR. Required of music majors; development of skills in perceiving and writing music through the use of aural and visual analysis and examples from all historical periods of music literature.

**MUT 1241 Aural Theory** (1) VP MUS
PR: MUT 1241, DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.

**MUT 1242 Aural Theory II** (1) VP MUS
PR: MUT 1241, DPR. Open to all university students with the necessary proficiency in their performing media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments.

**MUT 2116 Music Theory III** (3) VP MUS
PR: MUT 1112, DPR. Required of music majors, continuation of MUT 1111 and 1112.
gain proficiency in an area other than their applied performance lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVB 1215 Applied Tuba (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVB 1311 Trumpet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1312 French Horn Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1313 Trombone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1314 Euphonium Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1315 Tuba Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1411 Trumpet Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1412 French Horn Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1413 Trombone Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1414 Euphonium Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1415 Tuba Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 2321 Trumpet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 2322 French Horn Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 2323 Trombone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 2324 Euphonium Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis.
MVJ 1219 Jazz Percussion (1) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 1214 Applied Jazz Bass (1) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVJ 1213 Applied Jazz Guitar (1) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVB 4343 Euphonium Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 4242 French Horn Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVB 4241 Trumpet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 4194 Trumpet Major (3) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 4344 Euphonium Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 4344 Euphonium Major (3) VP MUS
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVB 4343 Euphonium Principal (2) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVB 4342 French Horn Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVB 4341 Trumpet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 4340 Trumpet Major (3) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Type</th>
<th>Restrictions</th>
<th>Notes</th>
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<td>MVJ 4950</td>
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<td>MVJ 5253</td>
<td>Applied Jazz Guitar Secondary (2)</td>
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<td>MVJ 5254</td>
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<td>MVJ 5259</td>
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MVK 4441 Piano Major (3) VP MUS
PR: DPR. Necessary competency at senior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVK 4640 Piano Pedagogy I (4) VP MUS
PR: DPR. May be elected by undergraduate music majors; emphasis is placed on the business management of the music studio, and the musical responsibilities of the studio teacher, the techniques of private instruction.

MVK 4641 Piano Pedagogy II (4) VP MUS
PR: MVK 4640. DPR. May be elected by undergraduate music majors; emphasis is placed on the business management of the music studio, and the musical responsibilities of the studio teacher, the techniques of private instruction.

MVK 5221 Applied Piano (1) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVP 5951 Applied Jazz Performance (2) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Private and class instruction.

MVP 5251 Applied Percussion, Secondary (2) VP MUS
PR: DPR. May be elected by undergraduate music majors; emphasis is placed on the business management of the music studio, and the musical responsibilities of the studio teacher, the techniques of private instruction.

MVP 5431 Percussion Pedagogy (2) VP MUS
PR: DPR. Private and class instruction.
MVS 1214 Applied Double Bass (1) VP MUS
PR: DPR. Course is open by audition only. One-half hour private
lesson or one hour class per week for music students wishing to
gain proficiency in an area other than their applied performance
major and for a limited number of nonmusic majors who have had
prior musical training.

MVS 1311 Violin Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 1312 Viola Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 1313 Violoncello Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 1314 Double Bass Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 1411 Violin Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited
number of non-music majors by audition only. Applied music
courses are NOT available on S/U basis. Private and class
instruction.

MVS 1412 Viola Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited
number of non-music majors by audition only. Applied music
courses are NOT available on S/U basis. Private and class
instruction.

MVS 1413 Cello Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited
number of non-music majors by audition only. Applied music
courses are NOT available on S/U basis. Private and class
instruction.

MVS 1414 Double Bass Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited
number of non-music majors by audition only. Applied music
courses are NOT available on S/U basis. Private and class
instruction.

MVS 2321 Violin Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 2322 Viola Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 2323 Violin Major (2) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited
number of non-music majors by audition only. Applied music
courses are NOT available on S/U basis. Private and class
instruction.

MVS 2324 Viola Major (2) VP MUS
PR: DPR. Necessary competency at Sophomore level determined
by faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 2421 Violin Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined
by faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 2422 Viola Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined
by faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 2423 Cello Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined
by faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 2424 Double Bass Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined
by faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 3331 Violin Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 3332 Viola Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 3333 Violoncello Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 3334 Double Bass Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 3431 Violin Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by
faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 3432 Viola Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by
faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 3433 Cello Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by
faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 3434 Double Bass Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by
faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 4341 Violin Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 4342 Viola Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 4343 Violoncello Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 4344 Double Bass Principal (2) VP MUS
PR: DPR. Required of all music education and composition
majors. Open to a limited number of non-music majors by audition
only. Applied music courses are NOT available on S/U basis.
Private and class instruction.

MVS 4441 Violin Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by
faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 4442 Viola Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by
faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 4443 Cello Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by
faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 4444 Double Bass Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by
faculty jury examination. Required of all applied music majors.
Private and class instruction.

MVS 5251 Applied Violin (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students
who have completed recital requirements, special non-degree
seeking students, and students who have a secondary applied
music requirement. Private and class instruction.

MVS 5252 Applied Viola (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students
who have completed recital requirements, special non-degree
seeking students, and students who have a secondary applied
music requirement. Private and class instruction.
MVS 5253 Applied Cello (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree major seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVS 5254 Applied Double Bass (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree major seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 1211 Applied Voice (1) VP 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.

MVW 1311 Voice Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 1411 Voice Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVV 2321 Voice Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVV 2421 Voice Major (3) VP MUS
PR: DPR. Necessary competency at sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVV 3331 Voice Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVV 3431 Voice Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVV 4341 Voice Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 1211 Flute Principal (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVW 1311 Flute Principal (2) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 1312 Oboe Principal (2) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 1313 Clarinet Principal (2) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 1314 Bassoon Principal (2) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 1315 Saxophone Principal (2) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 1411 Flute Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 1412 Oboe Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 1413 Clarinet Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 1414 Bassoon Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 1415 Saxophone Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 2321 Flute Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 2322 Oboe Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 2323 Clarinet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 2324 Bassoon Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 2325 Saxophone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 2421 Flute Major (3) VP MUS
PR: DPR. Necessary competency at sophomore level determined by faculty jury examination. Required of all applied music majors.
MVW 4343 Clarinet Principal (2) VP MUS
PR: DPR. Required of all applied music majors. Private and class instruction.

MVW 4342 Oboe Principal (2) VP MUS
PR: DPR. Required of all applied music majors. Private and class instruction.

MVW 4341 Saxophone Principal (2) VP MUS
PR: DPR. Required of all applied music majors. Private and class instruction.

MVW 4441 Flute Major (3) VP MUS
PR: DPR. Required of all applied music majors. Private and class instruction.

MVW 4440 Oboe Major (3) VP MUS
PR: DPR. Required of all applied music majors. Private and class instruction.

MVW 4439 Clarinet Major (3) VP MUS
PR: DPR. Required of all applied music majors. Private and class instruction.

MVW 4438 Bassoon Major (3) VP MUS
PR: DPR. Required of all applied music majors. Private and class instruction.

MVW 4437 Flute Major (3) VP MUS
PR: DPR. Required of all applied music majors. Private and class instruction.

MVW 4436 Clarinet Major (3) VP MUS
PR: DPR. Required of all applied music majors. Private and class instruction.

MVW 4435 Saxophone Principal (2) VP MUS
PR: DPR. Required of all applied music majors. Private and class instruction.

MVW 4445 Saxophone Major (3) VP MUS
PR: DPR. Required of all applied music majors. Private and class instruction.

MVW 5252 Applied Oboe (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 5253 Applied Clarinet (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 5254 Applied Bassoon (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

MVW 5255 Applied Saxophone (2) VP MUS
PR: DPR. Open to senior and advanced undergraduate students who have completed recital requirements, special non-degree seeking students, and students who have a secondary applied music requirement. Private and class instruction.

NCR 5781 Informatics in Nursing and Healthcare (3) NU NUR
PR: CSCI Foundations course with emphasis on essential content and applications in healthcare informatics and clinical systems. Provides understanding of the interdisciplinary issues in medical and nursing informatics and a foundation for those seeking expertise in healthcare informatics. Focus on technologies in healthcare, nomenclatures and classifications systems, health care documentation, electronic medical records, and web-based technologies for healthcare.

NCR 1110 Introduction to Naval Science (3) US NAVY
Emphasis on the mission, organization, regulations and components of the Navy and Marine Corps.

NCR 1110L Naval Science Laboratory (0) US NAVY
A weekly two-hour laboratory covering professional and military subject matter. Attendance is mandatory for all midshipmen.

NCR 1140 Seapower and Maritime Affairs (3) US NAVY
This course deals with the importance of seapower in historical events, including emphasis on worldwide political-military confrontations following the cold war.

NCR 2121 Naval Ships Systems I (3) US NAVY
Types, structures and purpose of naval ships. Hydrodynamic forces, stability, compartmentalization, electrical, and auxiliary systems. Theory of design and operation of steam, gas turbine, and nuclear propulsion. Shipboard safety and firefighting.

NCR 2212C Navigation/Naval Operations I: Navigation (3) US NAVY
Plan and celestial navigation theory, principles, and procedures. Tides, currents, weather, use of navigation instruments and equipment, and practice. Laboratory required.

NCR 2221 Evolution of Warfare (3) US NAVY
A survey of military history emphasizing principles of warfare, strategy and tactics, and significant military leaders and
NUR 3215 Principles of Naval Management I (3) US NVY
Theory and principles of management, focusing on the officer-manager as an organizational decision maker. Includes interpersonal skills, behavior factors, group dynamics.

NUR 3211 Critical Care Study in Naval ROTC (1-3) US NVY
PR: Permission of Professor of Naval Science. Intensive individualized study in particular aspects of Naval Science that are not covered in regular course offerings. Enrollment is recommended for NRROT students who are anticipating attending the Naval Science Institute in Newport, RI, during sophomore/junior summer.

Course content and title may vary from term to term.

NSC 3123 Naval Ships Systems II (3) US NVY

NUR 3214C Navigation/Naval Operations II: Seamanship and Ship Operations (3) US NVY
PR: NSC 2213. International and inland rules of the road; relative motion-vector analysis, ship handling, employment, and tactics, afloat communications; and operations analysis. Laboratory required.

NUR 4224 Amphibious Warfare (3) US NVY
History of amphibious warfare emphasizing doctrine and techniques as well as an understanding of the interrelations of political, strategic, operational, tactical, and technical levels of war from the past.

NUR 4232 Principles of Naval Management II (Leadership and Ethics) (3) US NVY
PR: NSC 2231. Integration of professional competencies and qualities of effective leadership with emphasis on moral and ethical responsibilities, accountability, communications and military law for the junior officer.

NUR 3064 Physical Examination and Assessment (2) NU NUR
PR: Admission to nursing major or CI. Focuses on the techniques of physical assessment and examination of infants, children, and adults. Emphasizes assessment skills of nursing process using critical thinking to enable the student to perform evaluations of health status throughout the lifespan.

NUR 3064L Clinical Experience in Health Assessment - RN (1) NU NUR
PR: Admission to nursing major or CI. CR: NUR 3064 Clinical experience on history taking, physical assessment skills basic to biopsychosocial assessment and physical examination of adults and children. Emphasizes diagnostic reasoning and identification of alteration in functional health patterns.

NUR 3076 Fundamentals of Communication and Psycho-social Nursing (2) NU NUR
PR: Admission to the nursing major or CI. Focus on basic communication, interviewing, and psychosocial assessment skills essential for professional nursing practice. Emphasis on developing nurse-patient relationships. An analysis on how individuals across the lifespan within the context of the family.

NUR 3114 Fundamentals of Nursing Practice and Foundations for Clinical Judgment (2) NU NUR
PR: Admission to the nursing major or CI; CR: NUR 3114L Fundamentals and foundations of nursing practice. Focus on developing critical thinking in applying concepts health to meet the basic needs of the individual across the life span.

NUR 3114L Nursing Fundamentals Clinical (3) NU NUR
PR: Admission to the nursing major or CI; CR: NUR 3114 Clinical experiences in the fundamentals of clinical nursing practice. Focus on developing critical thinking applying nursing process, physical assessment, and concepts of health and illness to meet the basic needs of the individual across the life span.

NUR 3125 Pathophysiology for Nursing Practice (3) NU NUR
PR: Admission to the nursing major or CI. Central concepts of pathophysiology; cells, tissues, organs and systems. Provides essential knowledge base in pathophysiology across the lifespan for professional nursing practice.

NUR 3145 Pharmacology in Nursing Practice (3) NU NUR
PR: Admission to the nursing major or CI. Focus on the basic and clinical concepts of pharmacology in nursing practice. Examines pharmacotherapeutics; pharmacodynamics; pharmacokinetics; adverse reactions and contraindications; therapeutic indications and nursing implications.

NUR 3215 Medical Surgical Nursing I (3) NU NUR
PR: NUR 3064, NUR 3125, NUR 3114, NUR 3114L. Focuses on the nursing assessment, prevention, and management of selected health care problems in adults of all ages. Critical thinking is used to analyze the effects of changes in health status and impact of nursing intervention for patients with alteration in Fluid and Electrolyte Balance, Hemotologic System, Cardiovascular System, Pulmonary System, Renal System, Endocrine, Cancer, Multisystem Dysfunction.

NUR 3215L Medical Surgical Nursing Clinical I (3) NU NUR
PR: NUR 3064, NUR 3125, NUR 3114, NUR 3114L, CR: NUR 3215L. Clinical intervention for patients with selected health problems. Emphasizes clinical judgment in implementing therapeutic nursing interventions for patients with selected health problems related to specific abnormalities in 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 3216 Medical Surgical Nursing II (3) NU NUR
PR: Admission to nursing major or CI. Focus 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 3255 Psychiatric/Mental Health Nursing (3) NU NUR
PR: NUR 3076, NUR 3064, NUR 3125, NUR 3114 and NUR 3114L. CR: NUR 3255L. Explores mind, body, and spirit alterations in functional health patterns experienced by patients with acute and chronic mental illness. Examines psychopathology, psychopharmacologic therapies and community resources and the role of the nurse in psychiatry.

NUR 3252L Psychiatric/Mental Health Nursing Clinical (3) NU NUR
PR: NUR 3076, NUR 3064, NUR 3125, NUR 3114 and NUR 3114L. CR: NUR 3252. Focus on clinical intervention using critical thinking and communication skills with patients who require complex psychiatric rehabilitative care. Opportunities are offered to apply knowledge of psychopathology and psychopharmacologic therapies across the lifespan.

NUR 3805 Education Transitions for Registered Nurses (3) NU NUR
PR: Admission to the nursing major. Transition to professional nursing for the registered nurse, its theoretical perspective and empirical bases and essential skills for success in nursing education. Focus on developing a variety of learning strategies and approaches for NROTC students who are anticipating attending the Naval Academy.

NUR 3829 Ethical Legal Aspects in Nursing and Health Care MW (3) NU NUR
PR: CI. Nursing Majors. Introduction to contemporary bioethical and legal issues confronting health care providers in a variety of settings. Focuses on identification of legal and ethical principles underlying the decision-making process in nursing and health care practice.

NUR 4165 Nursing Inquiry (3) NU NUR
PR: Admission to the nursing major. An introductory course in research. Emphasizes research in the nursing profession. Focus on evidence-based practice for nursing.

NUR 4194 An Interdisciplinary Perspective in HIV Disease 6A MW LW (3) NU NUR
PR: Admission to the nursing major or CI. Focuses on the nursing major. 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 4216 Medical Surgical Nursing II (4) NU NUR

NUR 4216L Medical Surgical Nursing Clinical II (5) NU NUR
PR: NUR 3215, NUR 3114L, NUR 3215L. CR: NUR 4216. Focus 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 4555 Child and Adolescent Health Nursing (3) NU NUR
PR: NUR 4216, NUR 4216L. CR: NUR 4653L, NUR 4636, NUR 4455. Nursing care of children and adolescent in the context of the family. Focus on health promotion, risk factor identification, disease
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title and Description</th>
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</thead>
<tbody>
<tr>
<td>NUR 4935 Selected Topics In Nursing (2-8) NU NUR</td>
<td>Junior or senior standing or permission of faculty. Content will depend upon student demand and faculty interest and may focus on an area relevant to nursing practice. May involve class, seminar, and/or clinical laboratory.</td>
</tr>
<tr>
<td>NUR 4948L Preceptorship (5) NU NUR</td>
<td>Designed to develop proficiency in the understanding and oral communication of literary and other written materials.</td>
</tr>
<tr>
<td>NUR 4635L Community/Public Health Clinical for the RN (3) NU NUR</td>
<td>Provides clinical learning experiences in community-based sites in both urban and rural settings. Focus on nursing care designed to prevent and/or reduce risk of disease and injury, promote health and wellness, and treat illness and injury in children, adolescents, adults and families, and diverse community populations across the age spectrum.</td>
</tr>
<tr>
<td>NUR 4636 Community/Public Health: Population-Focused Nursing (3) NU NUR</td>
<td>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 ethical/legal factors.</td>
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<tr>
<td>NUR 4643 Nursing Interventions into the Acute Effects of Drug and Alcohol Abuse (2) NU NUR</td>
<td>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 ethical/legal factors.</td>
</tr>
<tr>
<td>NUR 4644 Nursing Interventions into the Rehabilitation of Clients who Abuse Substance (2) NU NUR</td>
<td>Focuses on models of treatment and interventions for clients and families who are in the rehabilitation and relapse prevention phases of treatment for addiction. Emphasis will be placed on rehabilitation outcomes for designated populations with consideration for criminal socioeconomic, political and legal/ethical factors.</td>
</tr>
<tr>
<td>NUR 4645 Substance Abuse Across the Lifespan (6A MW LW) (3) NU NUR</td>
<td>Introduces to concepts of disease and theories of addiction. The applicability of theories and concepts to clinical assessment, diagnosis and intervention with client populations across the lifespan is explored.</td>
</tr>
<tr>
<td>NUR 4652 Occupational Health Nursing (2) NU NUR</td>
<td>Focuses on the theoretical, legal, cultural, scientific, and professional foundations of occupational and environmental health nursing; the occupational health nurse role in the delivery of health services to workers and worker aggregated business, social, economic, and legal forces influencing that role; standards and characteristics of practice; and settings for occupational health nursing practice.</td>
</tr>
<tr>
<td>NUR 4756C Rehabilitation Across the Life Span (2) NU NUR</td>
<td>Focuses on the assessment and treatment of individuals and families who are in the rehabilitation and relapse prevention phases of treatment for addiction. Emphasis will be placed on rehabilitation outcomes for designated populations with consideration for criminal socioeconomic, political and legal/ethical factors.</td>
</tr>
<tr>
<td>NUR 4766 Critical Care (2) NU NUR</td>
<td>Focuses on the theoretical, legal, cultural, scientific, and professional foundations of occupational and environmental health nursing; the occupational health nurse role in the delivery of health services to workers and worker aggregated business, social, economic, and legal forces influencing that role; standards and characteristics of practice; and settings for occupational health nursing practice.</td>
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<tr>
<td>NUR 4838 Leadership and Management in Professional Nursing Practice (3) NU NUR</td>
<td>Focuses on the assessment and treatment of individuals and families who are in the acute phases of addiction. Emphasis will be placed on rehabilitation outcomes for designated populations with consideration for criminal socioeconomic, political and legal/ethical factors.</td>
</tr>
<tr>
<td>NUR 4856C Independent Study (1-5) NU NUR</td>
<td>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.</td>
</tr>
<tr>
<td>NUR 4955 Selected Topics In Nursing (2-8) NU NUR</td>
<td>Junior or senior standing or permission of faculty. Content will depend upon student demand and faculty interest and may focus on an area relevant to nursing practice. May involve class, seminar, and/or clinical laboratory.</td>
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<td>NUR 4948L Preceptorship (5) NU NUR</td>
<td>Designed to develop proficiency in the understanding and oral communication of literary and other written materials.</td>
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<td>NUR 4635L Community/Public Health Clinical for the RN (3) NU NUR</td>
<td>Provides clinical learning experiences in community-based sites in both urban and rural settings. Focus on nursing care designed to prevent and/or reduce risk of disease and injury, promote health and wellness, and treat illness and injury in children, adolescents, adults and families, and diverse community populations across the age spectrum.</td>
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<td>Focuses on the theoretical, legal, cultural, scientific, and professional foundations of occupational and environmental health nursing; the occupational health nurse role in the delivery of health services to workers and worker aggregated business, social, economic, and legal forces influencing that role; standards and characteristics of practice; and settings for occupational health nursing practice.</td>
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<tr>
<td>NUR 4756C Rehabilitation Across the Life Span (2) NU NUR</td>
<td>Focuses on the assessment and treatment of individuals and families who are in the acute phases of addiction. Emphasis will be placed on rehabilitation outcomes for designated populations with consideration for criminal socioeconomic, political and legal/ethical factors.</td>
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<td>NUR 4766 Critical Care (2) NU NUR</td>
<td>Focuses on the theoretical, legal, cultural, scientific, and professional foundations of occupational and environmental health nursing; the occupational health nurse role in the delivery of health services to workers and worker aggregated business, social, economic, and legal forces influencing that role; standards and characteristics of practice; and settings for occupational health nursing practice.</td>
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<td>NUR 4838 Leadership and Management in Professional Nursing Practice (3) NU NUR</td>
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<tr>
<td>NUR 4955 Selected Topics In Nursing (2-8) NU NUR</td>
<td>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.</td>
</tr>
</tbody>
</table>
It will present the homeostatic, defense, and detrimental aspects biological principles involved in the vertebrate immune response.

CR: PCB 4723. Laboratory portion of Animal Physiology.

Lec. to interact with their environment and to maintain their organization. Lecture on population genetics, adaptations, speciation theory, and gene interactions.

CP: PCB 3023. Laboratory portion of Cell Biology. Metabolic systems; and control of cellular metabolism. Lec.

It is spent working on individual research projects.

PR: PCB 3063, CI. Detailed examination of DNA, RNA and protein synthesis; the effects of mutations on proteins, cellular control; selected aspects of viral, bacterial, and fungal genetics.

PCB 5845C Principles of Neuroscience (3) AS BIO
PR: PCB 4723. An introduction to the mammalian brain's structure and function, with an emphasis on the neuroanatomy, neurophysiology, and neurochemistry of the human brain. Topics include brain imaging, dementia, and mechanisms of learning/memory. Brain research techniques are also discussed, as are basic neurophysiological processes that result in abnormal brain function.

PEN 2930 Selected Topics (1-2) ED EDJ
S/U only. Introductory experiences in the sport of Karate. Basic skills, information, strategy, and participation.

PEN 2122 Golf II (2) ED EDJ
S/U only. Continuation of PEN 1121. Emphasis on course play and refinement of strokes.

PEN 2342 Tennis II (2) ED EDJ
S/U only. Continuation of PEN 1121L. Emphasis on course play and refinement of strokes.

PEN 2441 Karate (2) ED EDJ
S/U only. Introductory experiences in the sport of Karate. Fundamental skills, strategy, information, and participation.

PEN 2930 Selected Topics (1-2) ED EDJ
S/U only. Development and refinement of the essential skills and information necessary for increasing muscle function. Assessment of status and development of a personal program.

PEN 2130 Lifeguard (2) ED EDJ
S/U only. Lifeguard certification offered.

PEN 2123 Skin & Scuba Diving (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 2122 or equivalent. S/U only. Knowledge and skills necessary for saving the lives of others in the event of aquatic emergency. ARC certification offered.

PEN 2130 Skijet & 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 3951 Communication Skills For Wellness Leaders (3) ED EDP
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.
Wellness majors only. Designed to develop knowledge and skills in communication and counseling that is specific to wellness and health promotion.

PET 3170 Aquatic Exercise (2) ED 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 2622C Care and Prevention of Physical Injuries (3) ED EDP
DPR. Principles and techniques of conditioning athletes for competitive prevention and care of injuries in physical education and athletic activities.

PET 3031 Motor Development and Assessment (3) ED 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 3800 Survey of Wellness Program (3) ED EDP
Wellness majors only. 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) ED EDP
PR: Junior, Senior standing. A study of organized sport as a pervasive part of contemporary society. By increasing understanding of some of the issues and problems 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) ED EDP
A study of the structure and function of the skeletal and muscular systems and of mechanical principles related to psycho-motor performance. Open to non-majors.

PET 3351 Exercise Physiology I (3) ED EDP
A study of the effects of physical activity on the body. Topics include acute and chronic adaptation of the cardiovascular, muscular, metabolic, hormonal, and energy systems to exercise.

PET 3421 Curriculum and Instruction in Physical Education (3) ED EDP
Physical Education majors only. Development of knowledge and skills related to the instruction process of physical education. Preparation of materials and planning instruction.

PET 3422 Instructional Design and Content: Movement Experiences (3) ED EDP
PR: CC. Physical Education majors only. 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) ED EDP
Physical Education majors only. The development of physical education content and instructional practices for middle school students. The focus is upon matching appropriate content and learning experiences to the unique needs of the pre- and early adolescent learner.

PET 3617C Orthopaedic Physical Assessment I (Upper Extremity) (3) ED EDP
Athletic Training majors only. The study and practice of techniques used when assessing athletic injuries to the upper extremity, head, spine, and gait.

PET 3618C Orthopaedic Physical Assessment II (Lower Extremity) (3) ED EDP
Athletic Training majors only. The study and practice of techniques used when assessing athletic injuries to the lower extremity, hip, pelvis and gait.

PET 3621C Prevention of Athletic Injuries (3) ED EDP
Athletic Training majors only. Advanced principles in the selection, fabrication and application of protective equipment, tape, splints, casts, braces and other orthotic 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) ED EDP
Athletic Training majors only. Theory and practice of basic emergency management techniques dealing with trauma resulting from injuries and illness suffered by athletes.  Open to non-majors.

PET 3630C Techniques in Therapeutic Exercise (3) ED EDP
Athletic Training majors only. Theory and practical applications of therapeutic exercise and movement science. Includes techniques in Feldenkrais movement patterns, aquatic exercise, lifting protocols, plyometric training, isokinetic testing, stability ball training, and a variety of common exercise equipment.

PET 3639 Ed Adapted Physical Education (3) ED EDP
Physical Education majors only. A study of characteristics, programming needs and teaching of physical education for students with disabilities.

PET 3670 Athletic Training Administration and Policy (3) ED EDP
Athletic Training majors only. Analysis and application of organizational skills and administrative structure of the athletic training profession, including current theory about budget management, medical record keeping, drug testing, facility design and maintenance, legal aspects of sports medicine, athletic physical examinations, medical ethics, current educational concepts, and administrative policy.

PET 3670LC Clinical Instruction in Athletic Training I (3) ED EDP
Athletic Training majors only. Observation and performance of basic athletic training skills under the direct supervision of an NATA/BOC certified/state licensed athletic trainer. This course provides students with the opportunity to develop competence in a variety of introductory athletic training skills. Clinical experiences are obtained in the university’s sports medicine facilities and will be accompanied by a one-hour seminar each week.

PET 3671L Clinical Instruction in Athletic Training II (3) ED EDP
PR: PET 3670L. Athletic Training majors only. Continuation of clinical experience utilizing new skills under the direction of an NATA/BOC certified/state licensed athletic trainer. This course provides students with the opportunity to develop competence in a variety of introductory and mid-level athletic training skills. Clinical experiences are obtained in the university’s sports medicine facilities and/or approved affiliates and will be accompanied by a one-hour seminar each week.

PET 3931 Selected Topics (1-3) ED EDP
DPR. Topics offered are selected to reflect student need and faculty interest.

PET 3943 Physical Education Internship: Middle School (4) ED EDP
Physical Education majors only. A part-time internship in middle school physical education. Focus on the relationship of physical education to the needs of the pre- and early adolescent learner, the organization and purpose of the middle school, and application appropriate content and methodologies.

PET 4141 Trends and Tasks: Elementary Physical Education (3) ED EDP
Taken concurrently with PET 4942 Physical Education Internship: Elementary. Physical Education Majors only. Current trends are evaluated from a historical and philosophical perspective. Non-teaching tasks are identified as part of the professional role. Evaluate and continue personal-professional development plan developed in previous semesters.

PET 4404 Principles and Issues in Coaching (3) ED EDP
Physical Education majors only. The application of principles from philosophy, psychology, sociology, and physiology to competitive athletics and coaching.

PET 3384 Exercise Physiology II (3) ED EDP
PR: PET 3351. A study of Exercise Physiology focusing on the adult. Includes specific populations such as the obese, heart patients, arthritis, elderly, and high performance athletes. Open to non-majors.

PET 3384 Exercise Physiology Appraisal & Exercise Prescription (3) ED EDP
PR: PET 3351. Techniques in conducting health-fitness test and exercise tests. 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) ED EDP
Physical Education majors only. 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) ED EDP
Wellness majors only. Design and implementation of various
types of wellness programs with emphasis on assessment and evaluation, management, staffing, program development, legal liability, and marketing.

PET 4432 Instructional Design and Content: Physical Education Elementary (3) ED EDP
Physical Education majors only. This is the second of a three-course sequence in which students study movement forms and instructional processes suitable for elementary age students.

PET 4433 Instructional Design and Content: Physical Education Elementary II (3) ED EDP
Physical Education majors only. This course prepares students to select, plan, conduct complex movement experiences for students K-6.

PET 4442 Instructional Design and Content: Physical Education Secondary (3) ED EDP
Physical Education majors only. Development of knowledge and skills related to the teaching of selected movement activities such as team sports, gymnastics, and physical fitness. Focus is on understanding mechanical principles utilized within those activities as well as on instructional progression and the preparation of materials for instruction at the secondary school level.

PET 4443 Instructional Design and Content: Physical Education Secondary II (3) ED EDP
Physical Education majors only. In this course, students are prepared to plan, conduct, and evaluate complex movement experiences in games, dance, gymnastics and physical fitness appropriate for students Grades 7-12.

PET 4627 Management of Athletic Injuries (3) ED EDP
Athletic Training majors only. Advanced theory of pathology in injury, management of injury, and the healing environment related to sports injury. Course includes discussion of disease, internal injury and other general medical conditions. Issues related to radiology and pharmacology are also discussed.

PET 4632C Therapeutic Modalities (3) ED EDP
Athletic Training majors only. 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, thermotherapy, cryotherapy, electrical stimulation, hydrotherapy, fluidotherapy, ultrasound, biofeedback and manual techniques will be emphasized.

PET 4633C Therapeutic Rehabilitation (3) ED EDP
Athletic Training majors only. Theories and applications methods of comprehensive therapeutic treatment and rehabilitation programs for injuries commonly sustained by the physically active.

PET 4672L Clinical Practice in Athletic Training (3) ED EDP
Athletic Training majors only. Continuation of clinical experience utilizing new skills under the direction of an NATABOC certified/ state licensed athletic trainer accompanied by a one-hour seminar each week. This course provides students with the opportunity to develop competence in a variety of mid-level and advanced athletic training skills. Students may be assigned to a USF athletic team and/or one or more off-campus clinical affiliations. Students at this level will develop instruction skills by acting as peer-supervisors for level I, II, and III students.

PET 4673L Clinical Practice in Athletic Training II (3) ED EDP
Athletic Training majors only. Continuation of clinical experience utilizing new skills under the direction of an NATABOC certified/ state licensed athletic trainer accompanied by a one-hour seminar each week. This course provides students with the opportunity to develop competence in a variety of mid-level and advanced athletic training skills. Students may be assigned to a USF athletic team and/or one or more off-campus clinical affiliations. Students at this level will develop instruction skills by acting as peer-supervisors for level I, II, and III students.

PET 4905 Independent Study: Professional Physical Education (1-4) ED EDP
PR: DPR. S/U only. Specialized independent study determined by the student's needs and interests.

PET 4933 Seminar in Sports Medicine (2) ED EDP
Athletic Training majors only. The advanced study and discussion of specialized topics and contemporary issues related to the field of athletic training. Emphasis on the roles and responsibilities of medical and allied health professionals comprising the sports medicine team.

PET 4935 Case Studies in Athletic Health Care (3) ED EDP
Athletic Training majors only. Cases are intended to provide a unifying opportunity to utilize concepts, principles and skills learned from other athletic training courses.

PET 4942 Physical Education Pre-Internship: Elementary (4) ED EDP
S/U only. Physical Education majors only. A part-time internship in elementary school physical education. Focus on the nature of the curricular elementary school curriculum, characteristics of students, and application of appropriate content and instructional competencies.

PET 4944 Physical Education Pre-Internship: Secondary (4) ED EDP
S/U only. Physical Education majors only. A part-time internship in high school level physical education with focus on the relationship of physical education to the needs of the early adolescent and the implementation of appropriate content and methodology.

PET 4946 Associate Teaching Physical Education: Elementary (12) ED EDP
S/U only. Physical Education majors only. A full-time internship in the elementary school in which the student undertakes the full range of teaching responsibilities in elementary physical education.

PET 4947 Associate Teaching Physical Education: Secondary (12) ED EDP
S/U only. Physical Education majors only. A full-day internship in middle, junior or senior high school physical education programs with focus on the implementation of appropriate content and methodology to meet the needs of secondary students.

PGY 2110C Color Photography (3) ART
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) VP ART
Introduction to the expressive possibilities of photographic media. Projects and assignments will introduce students to both traditional and digital processes, focusing on image making. Issues of composition, darkroom techniques, editing in digital format with an emphasis on the interdependence of form, technique, and concept. The course will also provide an overview of significant trends and directions in contemporary art photography.

PGY 3000 Photography in American Culture (3) AS AMS
A survey of photography as an art and a craft in America since the mid-nineteenth century. Attention devoted to technological innovations, leading personalities, major movements, and influential icons. Open to majors and non-majors. Repeatable up to 9 hours.

PGY 3410C Intermediate Photography (3) VP ART
A mid level course expanding the student's visual and technical skills while establishing the beginning of a personal artistic direction. Repeatable up to 9 hours.

PGY 3610C Photojournalism I (3) AS COM

PGY 3620C Photojournalism II (3) AS COM
PR: PGY 3610C. Laboratory required. Advanced process and practice of photography for publication.

PGY 3801C Digital Media I (3) VP ART
Restricted to majors. This course builds upon the concepts introduced in Introduction to Multimedia Systems and focuses upon digital photographic creation and editing.

PGY 3930C Special Topics: Photography (3) VP ART
A mid-level course expanding the student’s visual and technical skills while establishing the beginning of a personal artistic direction by exposing the student to new ideas, technical skills and genres, including, but not limited to: color photography, digital photography, non-silver and documentary photography. Repeatable up to 9 hours.

PGY 4420C Advanced Photography (3) VP ART
PR: PGY 3410C Continued problems in photography. May be repeated.

PGY 4802C Digital Media II (3) VP ART
Restricted to majors. This course builds upon the concepts introduced in Digital Media I and focuses upon digital photographic, video, and multimedia creation.

PGY 5425C Art Photography III (4) VP ART
PR: CI. Advanced work in photography and related media leading to development of personal/expressive statements.

PHH 2000 Introduction to Philosophy 6A HP (3) AS PHI
An introduction to selected philosophical problems and traditions.
PHH 3062 History of Philosophy: Ancient and Medieval (3) AS PHI
A survey of the Western philosophy from the time of Socrates to the end of the Middle Ages.

PHH 3420 History of Philosophy: Modern (3) AS PHI
A survey of Western philosophy from the time 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 4700 American Philosophy 6A MW (3) AS PHI
Major traditions in American thought, Puritanism, the Enlightenment, Transcendentalism, Idealism, Pragmatism, and Analytic Philosophy in relation to American culture.

PHH 4820 Chinese Philosophy (3) AS PHI
A survey of Confucianism, Taoism and other aspects of Chinese thought. The course is available to both majors and non-majors and does not have laboratory sections associated with it.

PHI 1103 Critical Thinking SS (3) AS PHI
Methods of thinking that lead to reliable conclusions, with emphasis on formal logic in ordinary thinking and the sciences.

PHI 1401 Science and Society 6A SS SS (3) AS PHI
This class teaches students to become a better "Scientific Citizen," i.e. to be able to better understand and participate in the process by which we come to conclusions about the natural and social world that matter to us as a society.

PHI 1600 Introduction to Ethics HP SS (3) AS PHI
Study of ethical theories, concepts, problems and methods.

PHI 2101 Introduction to Formal Logic (3) AS PHI
An elementary study of prepositional, predicate, class and syllogistic logic with some attention to basic problems of logical theory.

PHI 2631 Ethics and Business SS (3) AS PHI
An application of traditional ethical theories to contemporary problems in business.

PHI 3404 Scientific Method (3) AS PHI
Probability, inductive inference, the hypothetico-deductive method, experimentation, and selected topics in the philosophy of science.

PHI 3630 Contemporary Moral Issues SS (3) AS PHI
Open to all students. A study of contemporary moral issues concerning racism, 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, divided loyalty, racism, sexism, etc.

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, featuring reflective comparisons of African and Western categories of thought.

PHI 4300 Theory of Knowledge 6A MW (3) AS PHI
An examination of human knowledge: its scope and limits, and an evaluation of evidence, criteria of truth, the nature of belief, conditions for meaningfulness, theories of perception, and a study of memory and sense perception in the four major fields of nature, history, personal experience, and the a priori.

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 Wollstonecraft, Mill, Gilligan, Daly, Engdahl and others.

PHI 4670 Contemporary Ethical Theory (3) AS PHI
A survey of contemporary ethical theory, focusing both on the literature about the status of ethical theorizing—moral scepticism, moral nihilism, normativity—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, and the relations between scientific languages and ordinary linguistic usage. Seminar format.

PHI 5913 Research (1-4) AS PHI
PR: CI. Approval slip from instructor required. Individual research supervised by a faculty member.

PHI 5934 Selected Topics (1) AS PHI
PR: CI. Approval slip from instructor required. Selected topics according to the needs of the student.

PHI 3020 Philosophies of Love and Sex (3) AS PHI
Distinction of Philosophies of Love by Plato, Aristotle, Epicurus, Aquinas, Hume, Kant, Schopenhauer, Russell, Sartre, Marx, etc.

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 survey of the fundamental concepts of law from a philosophical standpoint including crime, justice, punishment, free speech, insanity.

PHM 4120 Major Black Thinkers (3) AS AFA
PR: Junior or Senior standing. Survey of major themes and issues in African/African-American intellectual and political thought with an emphasis on theories of nationalism. Works of individuals such as Martin Delany, Booker T. Washington, W. E. B. DuBois, Marcus Garvey, Malcolm X, and Angela Davis are considered.

PHM 4522 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 4331 Modern Political Philosophy 6A MW (3) AS PHI
A survey of political philosophy from 1600 A.D. until 1900 A.D., including an examination of the ethical, metaphysical, and epistemological bases of these philosophies.

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 study 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.

PHP 3786 Existentialism 6A HP (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 include the dialogues Protagoras, Georgias, Meno, Republic.

PHP 4010 Aristotle 6A MW (3) AS PHI
Study of Aristotle's philosophy.

PHP 410 Kant (3) AS PHI
Lecture and discussion of Kant's philosophy, especially the Critique
demonstrated with clinical problem-solving scenarios. Restricted to majors.

The Rationalists

A study of the metaphysics and epistemologies of Locke, Berkeley, Hume, and Thomas Reid.

Spinoza, Leibniz, and Malebranche.

Hegelian foundations of Marxist philosophy analyzed in detail.

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.

Major emphasis on selecting, justifying, evaluating, diagnosis of and intervention for clients with activity impairments involving the extremities. Emphasis on obtaining a history and performing physical therapy tests and measures for clients with uncomplicated musculoskeletal impairments. Restricted to majors.

Introduction to physical therapy skills used in examination, evaluation, diagnosis for clients with uncomplicated musculoskeletal impairments. Emphasis on obtaining a history and performing physical therapy tests and measures for clients with uncomplicated musculoskeletal impairments. Restricted to majors.

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PHY 4324 Optics (4) AS PHY
PR: PHY 2049; CR: MAC 2283 or MAC 2313. Reflection, refraction, dispersion, interference, diffraction, polarization, and laboratory.

PHY 3822L Intermediate Laboratory (3) AS PHY
PR: PHY 2049 or equivalent; CR: PHY 3101. Experiments in modern physics, including the areas of atomic, nuclear, solid state and wave physics. Lagrange’s and Hamilton’s equations; inertia tensor; general rotation of rigid bodies.

PHY 4031 Great Themes in Physics 64 MW (3) AS PHY

PHY 4222 Mechanics II (3) AS PHY
PR: PHY 3221; CR: MAP 2302. Continuation of PHY 3221. Coupled oscillators and normal modes; moving coordinate systems; Lagrange’s and Hamilton’s equations; inertia tensor; general rotation of rigid bodies.

PHY 4324 Electricity and Magnetism II (3) AS PHY
PR: PHY 3322. Introduction to special relativity, magnetic fields and potentials, magnetic materials, RL and RLC circuits, Maxwell’s equations and applications.

PHY 4523 Statistical Physics (3) AS PHY
PR: PHY 3101, senior status. Statistical approach to thermodynamics and kinetic theory and introduction to statistical mechanics.

PHY 4744C Introduction to Quantum Mechanics (3) AS PHY
PR: PHY 3101 or, CR: PHY 3101L. Basic concepts of quantum mechanics with applications in atomic, nuclear, and condensed matter Physics.

PHY 4744C Introduction to Electronics and Test Instrumentation (3) AS PHY
PR: General Physics or CR: PHY 4604 or CR: Nuclear Physics, basic concepts of quantum mechanics with applications in atomic, nuclear, and condensed matter Physics.

PHY 4823L Advanced Laboratory (3) AS PHY
PR: PHY 3822L. Experimental work primarily related to modern physics. Emphasis on experimental techniques used in current research.

PHY 4905 Independent Study (1-3) AS PHY
PR: CR: S/U only. Specialized, independent study determined by the student’s need and interest. The written contract required by the College of Arts and Sciences specifies the regulations governing independent study.

PHY 4910 Undergraduate Research (1-4) AS PHY
PR: Senior or advanced junior standing and CC. S/U only. An individual investigation in the laboratory or library or both, under the supervision of the instructor. Credit hours and other contractual terms are to be determined by student/instructor agreement.

PHY 4939 Undergraduate Research (1-4) 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 and 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 2103 Problems in General Physics I (1) AS PHY
CR: PHY 2048 or PHY 2053. First semester of a two-semester sequence on problem solving in General Physics I. A course designed to be taken with the lecture course and to help students with developing problem-solving skills.

PHZ 2103 Problems in General Physics II (1) AS PHY
CR: PHY 2049 or PHY 2054. Second semester of a two-semester sequence on problem solving in General Physics II. A course designed to be taken with the lecture course and to help students with developing problem-solving skills.

PHZ 4151C Computational Physics (3) AS PHY
Introduction to computer applications in physics. Emphasis on numerical methods, solving problems using linear algebra, differential equations and Monte Carlo methods. No prior programming experience required.

PHZ 4731 Applications of Physics to Biology and Medicine I (4) AS PHY
PR: PHY-2054, PHY-2054L or PHY-2049, PHY 2049L. The first semester of a two-semester sequence, to discuss the applications of the physical concepts introduced in the General Physics sequence to biological systems and for medical applications. Restricted to non-majors.

PHZ 4732 Applications of Physics to Biology and Medicine II (4) AS PHY
PR: PHY-2054, PHY-2054L or PHY-2049, PHY 2049L; PHY 2053 or CR: PHY 3101. The second semester of a two-semester sequence, to discuss the applications of the physical concepts introduced in the General Physics sequence to biological systems and for medical applications. Restricted to non-majors.

PHZ 5115 Methods of Theoretical Physics I (3) AS PHY
PR: MAP 2302 or CR: 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 CR: 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: CGS 5420 or CR: 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, materials science.

PHZ 5304 Nuclear Physics I (3) AS PHY
PR: PHY 4604 or CR: Nuclear forces, nuclei models, nuclear structure, decay, nuclear reactions, and high energy physics.

PHZ 5405 Solid State Physics I (3) AS PHY
PR: PHY 3101, MAP 2302, CR: 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.

PHZ 5505 Plasma Physics I (3) AS PHY

POL 1120 Beginning Polish I (4) AS WLE
CR: POL 1120L. This course features all four major skills: listening, reading, speaking, and writing. Grammar exercises, dictation, readings and vocabulary-building are central in this first course. Knowledge of Russian can help. S/U available.

POL 1120L Beginning Polish I Laboratory (1) AS WLE
CR: POL 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.

POL 1121 Beginning Polish I Seminar (1) AS WLE
PR: POL 1120 or equivalent. CR: POL 1121L. This course combines the four basic skills of POL 1120, with continued emphasis on structures, dialogues, readings, dictation, and vocabulary-building. Knowledge of Russian can help. S/U available.

POL 1121L Beginning Polish I Laboratory (1) AS WLE
CR: POL 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.

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

POR 1120 Beginning Portuguese I (4) AS WLE
CR: POR 1120L. Development of basic skills in listening and reading, problem-solving, comprehension, speaking and writing of Brazilian Portuguese.

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

POR 1121 Beginning Portuguese II (4) AS WLE
PR: POR 1120; CR: POR 1121L. Continued development of basic skills in listening and reading, problem-solving, comprehension, speaking and writing of Brazilian Portuguese.

POR 1121L Beginning Portuguese II Laboratory (1) AS WLE
CR: POR 1121. Concurrent enrollment with a lecture session is
Introduction to issues concerning the legal aspects of sex and sex.

PR: POS 2041. Analysis of Supreme Court decisions and scholarly commentaries, and the writings of leading public figures.

PR: POS 2041. Leading social problems, principle institutions, Senate comparisons.

relations with governmental and non-governmental organizations crisis management and decision making; White House staffing; legislative, administrative, political, and foreign policy leadership;

The organization, development, and functioning of American court systems and the causes and consequences of judicial behavior from an empirical perspective.

Analysis of basic principles and procedures of the American governmental system with emphasis on current issues and trends.

This course is an introductory survey of the historical developments and changes in American political institutions, processes, and thought.

Analysis of the structure and function of state and local governments, of the social and political influences that shape them, and of the dynamics of their administrative processes.

Governmental and political structures and processes as they function in urban areas, with special focus on municipalities and locally based public services.

An analysis of role, functions, structure, and composition of such, and their impact on American governmental institutions.

Nature of law, legal process, relationship to political life of constitutional law, administrative law, the judicial process, and private law.

Examines some of the major issues involving environmental law.

Among these major issues are the legal structure for the protection of the environment, the business and energy industries, and the relationship of government and the public in the management of natural resources.

The course begins with an introduction to the legal evolution of the environment, including the legal nature of natural resources, the legal status of nature, and public participation in natural resource management.

The course then considers the various legal forms available for the protection of the environment and the environment.

PR: PSY 3213 with a grade of C or better or CI. Gross neural and physiological components of behavior. Structure and function of the nervous system.

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.

Examines political writings in the U.S. and responses to critical literature.

PR: POT 3003. An analysis of various kinds of theory used in political science for understanding political life: normative theory, empirical theory, historicism theory, analytical theory, and critical theory.

Analysis of basic ideas of Plato, Aristotle, Cicero, St. Thomas, and other leading pre-modern political philosophers.

Analysis of basic political ideas of Machiavelli, Hobbes, Locke, Rousseau, Burke, and other modern philosophers.

Examines various political views and political phenomena in the nineteenth and twentieth centuries. Diverse theoretical types and complex political phenomena will be presented.

Critical examination of the connections between politics and literature.

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.

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.

Selected topics or thinkers in political theory.

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.

A broad survey of psychology for both majors and non-majors with special emphasis on the more applied areas of psychology (e.g., school psychology, normal psychology, personality, and developmental psychology).

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PSY 3213 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 4504 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. S/U only. 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 Selected 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 social/public 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.

PUP 4002 Public Policy (3) AS POL
Examines the formation and implementation of public policy in areas such as the economy, health, etc.

PUP 4203 Environmental Politics and Policy (3) AS POL
Examines the politics of environmental issues, formation and implementation of policies, and their effects on public welfare.

PUP 4323 Women and Politics 6A MW (3) AS WST
An analysis of the impact of gender on power and influence in American society, and women's changing role in the political process.

PUP 5607 Public Policy and Health Care (3) AS POL
The study of health care policy as it relates to the policy process in the American setting.

PUP 3000 Principles of Public Relations (3) AS COM
PR: MMC 2100 and MMC 3602. The underlying theory and professional practice of public relations within corporate and institutional structures and its vital role in society, ethical standards of practice, and relationships of the practice to the public media; public relations problem-solving process.

PUP 3500 Public Relations Research (3) AS COM
PR: PUR 3000 and LIS 2002. The theory and practice of quantitative and qualitative research methods as applicable to the study of public relations and public relations campaigns. Emphasis is on the scope of research methods available to public relations practitioners, evaluation of data and report writing.

PUR 4100 Writing for Public Relations (3) AS COM
PR: JOU 2100 and PUR 3000. Techniques for creating effective written public relations communications to achieve organizational goals, including news releases, proposal letters, broadcast scripts, and media memos. Emphasis on issues based on case study scenarios.

PUR 4101 Public Relations Design and Production (3) AS COM
PR: MMC 2100 and MMC 3602. Theoretical and practical applications of design for public relations publications. Design software. Study of visual design, page architecture, typography, color and illustrations. Integration of design elements in the design of different types of public relations publications.

PUR 4401 Public Relations: Issues, Practices and Problems (3) AS COM
PR: PUR 3000. The theory of public relations practice and its application in the real world. The role of the public relations practitioner in business, government, and social institutions, and the nature of specialized areas of the practice. Identification of public issues, analysis of potential impact on organizations and development of strategies to deal with these issues successfully and responsibly. Communication techniques and trends.

PUR 4700 Public Relations Practicum (1) AS COM
PR: Senior standing and CI. For public relations sequence majors. S/U. 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.

PUR 4891 Advanced Public Relations (3) AS COM
PR: PUR 3500, 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 3200 Business And Economic Statistics I 6A QMB (3) BA QMB
PR: MAC 1105. Data description; exploratory data analysis; introduction to probability; binomial and normal distributions; sampling distributions; estimation with confidence intervals; tests of hypotheses; control charts for quality improvement.

QMB 3200 Business And Economic Statistics II (3) BA QMB
PR: MAC 2233 or MAC 2241, 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 5020 Foundations of Mental Health Counseling (3) AS REH
PR: CC. A skill-building course on the utilization of one’s self in mental health counseling relationships. Includes study of the origin, history, professional functions and current issues in the discipline of mental health counseling.

RCS 5035 Rehabilitation Counseling: Concepts and Applications (3) AS REH
PR: CI. 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, health, etc.

RCS 5080 Medical Aspects of Disability (3) AS REH
PR: RCS 5780 or CP. A survey of medical conditions and disabilities encountered by rehabilitation and mental health counselors. Examines the relationship of client handicaps, physical and mental, to rehabilitation and mental health programming.

RCS 5450 Substance Abuse I (3) AS REH

RCS 5480 Human Growth and Development (3) AS REH
PR: RCS 5780, RCS 5020. Majors only. Human development theory as applied in psychotherapy and case management rehabilitation, mental health, and addiction settings.

RCS 5780 Legal, Ethical, Professional Standards and Issues in Counseling (3) AS REH
PR: CC. An overview of all aspects of professional functioning including history, roles, organizational structures, ethics, standards and credentialing. Contemporany and developing issues in the field of professional counseling will also be addressed.

RCS 5905 Directed Studies (1-4) AS REH
PR: CI. Supervised rehabilitation studies under the direction of a faculty member.

REH 105 Critical Reading and Writing 6A (3) US REA
This course offers a systematic approach to the development of literal and critical reading skills and the related writing skills to enhance student success at the university level.

REH 4005 Learning Strategies Within Academic Disciplines (2) US REA
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 course work, providing direct transfer to academic area material. Will not be counted toward the English major.

REA 2505 Vocabulary (3) AS ENGL
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 REA
Topics will vary to meet the needs of students. Will not be counted toward the English major.

RED 4310 Reading and Learning to Read (3) ED EDER
PR: Admission to College of Education. This course will prepare pre-service teachers to understand the foundations of reading and the inherent learning principles to produce successful readers. The course focuses on appropriate instructional strategies to enhance reading development and reading across the curriculum.

RED 4511 Linking Literacy Assessment to Instruction (3) ED EDR PR: RED 4310. This course will prepare pre-service teachers to use multiple assessment measures to assess and diagnose students’ strengths and needs in literacy learning. Based on individual student profiles, teachers will design instruction to enhance literacy development.

REE 3043 Real Estate Decision Making (3) BA FIN
PR: FIN 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 the 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 patterns, and the role of taxation will be studied along with the application of analytical techniques for decision making.

REL 2210 Hebrew Bible/Old Testament (4) AS REL
An introduction to the critical study of the Hebrew Scriptures against the background of the ancient Near East, with attention to the history and religion of the Hebrew people.

REL 2240 Introduction to the New Testament (3) AS REL
An introduction to the critical study of the New Testament in context of Christian beginnings in the first century A.D.

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 (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 and conflicts between religions, and cultures. Emphasis will be placed on the role of religions in shaping human values which can either create or resolve social conflicts, and the impact these values can have on issues of race, ethnicity and religious diversity in a multicultural world.

REL 3000 Ancient Religions in Context (4) AS REL
Study of the religions in their cultural setting of the peoples of the Ancient Middle East and Mediterranean.

REL 3003 Introduction to Religion (3) AS REL
This course examines the phenomenon of religion to answer the question: Religion, what is it? Religious thought (mythology and theology) and religious behavior (ritual and morality) are closely examined from a variety of methodological perspectives.

REL 3101 Religion and Popular Culture SS HP 3 (3) AS REL
An exploration and analysis of the relationship between religion and popular culture, which will include inquiry into the definition and meaning of both religion and popular culture, the implications of secularization on traditional religious systems, and the widely diverse expressions of religion in contemporary popular culture.

REL 3111 The Religious Quest in Contemporary Films 6A SS HP 4 (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 culture, the implications on issues of racism, sexism and human liberation and reconciliation.

REL 3112 Religion and Contemporary American Holidays SS SS (3) AS REL
Introduces students to the academic study of religion through an exploration of issues and questions related to the character and function of holidays in contemporary America. Open to majors and non-majors.

REL 3114 Comedy, Tragedy, and Religion 6A MW (3) AS REL
Examines the visions of life in comedy and tragedy, and relates both to Judaism, Christianity, and Zen Buddhism.

REL 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-Phoenician immigration, the Jewish factor, the effect of home missions and social concern programs upon American life; political entanglements and the concept of church/state separation.

REL 3131 New Religions in America (3) AS REL
A course designed to allow the student to survey the wide spectrum of contemporary sects and cults in America and learn what motivates their development.

REL 3132 Witchcraft and Paganism in America (3) AS REL
A study of contemporary witchcraft and paganism, including theories, methods, history, myths and symbols, beliefs, rituals and practices, believers, recruitment, socialization, and organizations.

REL 3140 Religion, Culture, and Society (3) AS REL
Introductory scholarly survey of religion in its complex relationship to culture and society, including definitions and theories of religion, research methods, becoming religious, social organization, and interconnections with other social institutions. Open to non-majors.

REL 3145 Women and Religious Traditions in the West (3) AS REL
Analysis of the status and roles of women as compared to men in the Judeo-Christian tradition. Contemporary issues of feminist theology, and the controversies surrounding them.

REL 3146 Womanist Visionary Religion (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 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 Qur’an and related traditions, and as Judaism the authoritative statements of 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 3315 Introduction to Chinese Religion AF HP SS (3) AS REL
This course is for majors and nonmajors, and may not be repeated for credit. The course introduces the history and present state of the religious thoughts and practices in mainland China and the geographical areas in which the Chinese language is spoken.

REL 3316 The Religions of Asia AF (3) AS REL
All religions of the world came to India and all became Indian. What is this “Indianness” 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 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
REL 3375 Issues in Caribbean Religions (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 major 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 (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 religion.

REL 3500 History of Christianity (6) AS REL
Historical development of Western Christianity, its ideas and institutions, from the first century to the rise of religious modernism in the 19th century.

REL 3561 Roman Catholicism (3) AS REL
An examination of the history, doctrine, and ethics of the Roman Catholic Church.

REL 3600 Introduction to Judaism (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 (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 (6) AS REL
A study of Jewish life in the West since 1789, emphasizing Jewish beliefs, practices, and institutions.

REL 3601 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: CI. 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 (3) AS REL
A study of the way in which embedded religious models help to fashion the representation of an heroic protagonist. The focus of the course will be on the relationship between the hero and the “other,” as differentiated by race, gender, ethnicity, or merely inner being.

REL 4133 Mormonism in America (3) AS REL
A study of Mormonism in America as an example of a new religion. Includes the study of history, myths and symbols, texts, beliefs, rituals and practices, believers, recruitment, socialization, and organizations.

REL 4161 Religion, Technology and Society (3) AS REL
An exploration of the way in which religion and technology have interacted in western civilization so as to both express and transform human values and identity. Special emphasis will be given to the value questions raised by modern technology.

REL 4171 Contemporary Christian Ethics (6) AS REL
PR: CI. A survey of representative approaches to contemporary Christian ethics and their application to a number of ethical issues peculiar to personal and social life in contemporary society, with an emphasis on issues of race and gender and of cultural identity.

REL 4177 Comparative Religious Ethics (6) AS REL
A comparative study of religious ethics emphasizing how 20th century social activists, such as Gandhi and M.L. King Jr., and eco-feminists such as Rosemary Ruether and Joanna Macy, have drawn upon and transformed traditional religious stories and social practices in order to create a cross-cultural and inter-religious ethic for a multi-cultural world.

REL 4193 Comparative Mysticism (4) AS REL
A course designed to acquaint the student with the nature of mystical experience, and some of the varieties of mystical experience recorded in the writings of the mystics, East and West.

REL 4215 Ancient Israel and the Development of the Hebrew Bible (6) 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 4218 Women and the Bible (6) AS REL
How the redactors of Genesis through 2 Kings viewed women; the role women played in the society of the time in which they are portrayed and in that of the redactors; and, an attempt to find “the woman’s voices,” however muted, within the biblical text.

REL 4221 Who Wrote the Bible (Genesis-Kings) (4) AS REL
A critical examination of Genesis through 2 Kings. This course focuses on the history of the formation of the text and the development of the religious traditions represented therein. Special attention will be paid to Israelite Law, Covenant Theology, and the history of the religion(s) of the Children of Israel in their Ancient Near Eastern context.

An exploration of the Gospels and Acts, including their backgrounds in Judaism and pagan religion, literary and form criticism, historical Jesus research, and the social history of earliest Christianity.

REL 4266 Jesus’ Life and Teachings (4) AS REL
An examination of the various historical studies made in the quest of identifying Jesus as an historical figure. The concern is to make a reasonable assessment of who Jesus was and what he was saying to the Jews in Palestine at the beginning of the common era.

REL 4252 New Testament II: Pauline Letters (4) AS REL
The purpose is to examine the text of the thirteen “Pauline Letters” in the New Testament, to compare them with the Pauline sections of Acts, and to ascertain possible theological development of Paul and the “Pauline wing” of Christianity.

REL 4330 Hinduism (4) AS REL
The philosophy of the saints; the complex rituals of the Brahmins; the art of its temples; the psychology and physiology of yoga; the social rigidity of the caste system; the esoteric science of meditation; the ascetic activism of Mahatma Gandhi—all of these are Hinduism, and more. Close readings of classical texts, philosophic systems and medieval poems.

REL 4343 Buddhism in India, Sri Lanka, and South East Asia (4) AS REL
The life and teachings of the Buddha; the order of monks and nuns; the Buddhist Emperor Ashoka; schisms; the rise of the Great Vehicle and the philosophy of emptiness; Buddhist missions; Buddhist art and culture; Buddhism and national liberation; contemporary social and political issues.

REL 4344 Buddhism in China, Japan, and Tibet (4) AS REL
Mahayana Buddhism followed the silk routes to China and Japan, and later it crossed the Himalayas into Tibet. An overview of the variety of schools and practices of Buddhism and its adaptation by these ancient cultures.

REL 4626 Reason in Religion: Talmudic Logic (3) AS REL
An examination of the various techniques of reasoning found in Jewish law, with special emphasis on rabbinic logic and the methods of Jewish law. The Talmud of Babaylonia; the way in which applied logic and practical reason work in a religious definition of the social order; the dialectical argument.

REL 4670 Judaism and Christianity After the Holocaust (4) AS REL
This course will explore the impact of the Holocaust on Jewish and Christian thought and identity in the light of the history of religious and cultural anti-Semitism in Western civilization.

REL 4910 Undergraduate Research (1-4) AS REL
PR: Junior standing and CI. Individual investigations with faculty supervision.

REL 4911 Undergraduate Research (1-4) AS REL
PR: Junior standing and CI. Individual investigations with faculty supervision.

REL 4930 Selected Topics (3) AS REL
Course contents depend on student demand and instructor’s interest and may range over the whole field of Ancient Religions. Offerings on a semi-regular basis include the Bible as History 3.

REL 4931 Seminar in Religion (3) AS REL
PR: Majors and minors only or CI. A course required for Religious
Studies majors and minors, whose prior religious studies have prepared them for a cooperative creative and/or research effort in the area of religion.

REL 4936 Selected Topics (1-4) AS REL
PR: Junior standing. Individual investigations with faculty supervision.

REL 4937 Selected Topics: Fall Honors Seminar (2) AS REL
PR: Acceptance into the Religious Studies Honors Program. The course content will depend upon student demand and instructor's interest.

REL 4938 Selected Topics: Spring Honors Seminar (2) AS REL
PR: Acceptance into the Religious Studies Honors Program. The course content will depend upon student demand and instructor's interest.

REL 4939 The Development of Religious Studies (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 businesses and individuals. An examination of the characteristics of those areas of risk and uncertainty where the mechanisms of insurance are effective alternatives. The concept, contracts, and institutions involved in insurance are examined in relation to the socio-economic environment.

RMI 4115 Life, Health, And Disability Insurance (3) BA FIN
PR: QMB 3200, RMI 3011. The course will analyze the use of life, health, and disability insurance contracts as a method of dealing with the financial risks of death, sickness, and disability. It will include an analysis of cost determination of the various types of coverage.

RMI 4210 Property Insurance (3) BA FIN
PR: RMI 3011. Course dealing with recognition of personal and business property risks, and coverage that can be used in dealing with these risks. Consider the underwriting, marketing, and social problems associated with these coverages. Topics include commercial and residential fire insurance and transportation coverages, and multi peril contracts. Not limited to Finance majors.

RMI 4220 Casualty Insurance (3) BA FIN
PR: RMI 3011. Course dealing with recognition of personal and business casualty risks and coverages that can be used in dealing with these risks. Considers the underwriting, marketing, and social problems associated with these coverages. Topics include the cost of fire insurance, commercial, and personal lines insurance, and crime insurances. Not limited to Finance majors.

RTV 2100 Writing For Radio and TV (3) AS COM
PR: CRW 2100 or ENC 3310 and RTV 3001. The art and practice of script planning and writing for radio and television and for corporate videos.

RTV 3001 Introduction to Telecommunications (3) AS COM
PR: RTV 3000 and MMC 3602. A survey of the organization, structure, and function of the broadcasting industry.

RTV 3301 Broadcast News (4) AS COM
PR: MMC 2100 and MMC 3602. Methods in gathering, writing, and editing newscasts for radio and television.

RTV 3941 Radio Practicum (1) AS COM
PR: RTV 3001 and CI. For telecommunications sequence majors. S/U only. Practical experience outside the classroom where the student works for academic credit under the supervision of a professional practitioner. Periodic written and oral reports to the faculty member coordinating the study.

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

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

RUS 1121 Beginning Russian II (4) AS WLE
PR: RUS 1120 or CI. RUS 1121L. The second course in the study of elementary Russian. Emphasis on the development of basic skills in comprehension, speaking and reading.

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

RUS 2200 Russian III (4) AS WLE
PR: First year Russian or equivalent. Review and development of basic skills in conversation, composition, and reading.

RUS 2201 Russian IV (4) AS WLE
PR: RUS 2200 or equivalent. Review and development of basic skills in conversation, composition, and reading.

RUS 2270 Overseas Study (1-6) AS WLE
Intensive study of the Russian language in Russia involving at least 20 hours per week of classroom instruction and cultural excursions conducted in Russian around Moscow and other parts of Russia.

RUS 3240 Conversation I (4) AS WLE
PR: Second year Russian or equivalent. Development of basic conversational skills.

RUS 3470 Overseas Study (1-6) AS WLE
Must be enrolled in the USF Summer Study in Moscow program. Two years Russian required. Intensive Russian at Moscow Linguistic University with excursions in Moscow and Russia. Students from other institutions eligible.

RUS 3500 Russian Civilization 6A MW (3) AS WLE
A survey of the cultural history of Russia.

RUS 4241 Conversation II (4) AS WLE
PR: Previous course in series or equivalent. Development of conversational skills.

RUS 4402 Advanced Russian Conversation & Composition I (4) AS WLE
PR: RUS 4241 or CI. Third year Russian.

RUS 4403 Advanced Russian Conversation & Composition II (4) AS WLE
PR: RUS 4241 or CI. Third year Russian.

RUS 4471 Advanced Overseas Study (1-6) AS WLE
Must be enrolled in the USF Summer Study in Moscow program. Three years Russian required. Intensive Russian at Moscow Linguistic University with excursions in Moscow and Russia. Students from other institutions eligible.

RUS 4900 Selected Topics (1-3) AS WLE
Study of an author, movement or theme.

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

RUT 3110 Russian Classics in English 6A MW LW (3) AS WLE
Masterpieces of 19th century Russian literature in English. The major works of Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky, Tolstoy, and Chekhov. Elective for all students in all departments.

RUT 3131 Twentieth-Century Russian Literature in English 6A MW LW (3) AS WLE
Masterpieces of 20th century Soviet literature in English. The major works of Bely, Olesha, Babel, Zamyatin, Bulgakov, Pasternak, and Solzhenitsyn. Elective for all students in all departments.

SCE 4236 Science, Technology, Society Interaction 6A MW (4) ED EDN
Achieve an historical and philosophical understanding of (1) the nature of the scientific enterprise: interaction of science, technology, and society (STS), (2) how to teach STS including the use of computers and related technologies, and (3) intricacies of sample STS topics.

SCE 5300 Communication Skills in the Science Classroom (3) ED EDN
Reading and communication skills important in understanding scientific and science education literature and communicating
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<td>SOP 4004</td>
<td>Social Psychology (3)</td>
<td>AS PSY</td>
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**Findings to Others**

- **SCE 4310 Teaching Elementary School Science (3) ED EDE**
  - PR: Admission to College of Education and completion of General Distribution Requirements in the Natural Science area. Techniques and materials for teaching science in the elementary school.

- **SCE 4370 Teaching Methods in Middle Grade Science (3) ED EDN**
  - PR: Completion of 25 semester hours of Science or CC. Not designed for high school certification purposes. Survey techniques and materials unique to science, grades 5-9.

- **SCE 4372 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 science, the ultimate impact on students and survivors and rescuers.

- **SCE 4936 Senior Seminar in Science Education (1-2) ED EDN**
  - PR: Senior standing; CR: SCE 4940. Synthesis of teacher candidate’s courses in complete college program.

- **SCE 4940 Internship: Science Education (1-12) ED EDN**
  - CR: SCE 4936. One full semester of internship in a public or private school.

- **SCE 5937 Selected Topics in Science Education (1-4) ED EDN**
  - PR: SOW 4510L. An integrated course in which the leader functions.

- **SOP 3430 Social Psychology of HIV/AIDS (3) AS PSY**
  - PR: PSY 2012, PSY 3044, PSY 3213 Students study social psychology theory and research while working at an AIDS service organization. They observe the research as a framework for understanding, and developing solutions to, problems confronting the organization’s staff and clients.

- **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, social sciences, and the ultimate impact on students and survivors and rescuers.

- **SOP 4714C Environmental Psychology (3) AS PSY**
  - PR: PSY 3213 with a grade of C or better or CI. Explores the influences of environment on behavior. Topics considered include crowding, privacy, territorial behavior, environmental design, and pollution effects. Designed for both psychology majors and non-majors.

- **SOW 3101 Human Behavior and the Social Environment I (4) AS SOK**
  - PR: All provisional major courses. Restricted to full Social Work majors, others by School permission. An integrating course emphasizing dynamics of behavior and environmental factors as they relate to social work practice with individuals, and families.

- **SOW 3102 Human Behavior And The Social Environment II (4) AS SOK**
  - PR: SOW 3101. SOW 4522, SOW 4341. Restricted to full Social Work majors; others by School permission. An integrating course emphasizing dynamics of behavior and environmental factors as they relate to social work practice with families, groups, organizations and communities.

- **SOW 3203 The American Social Welfare System SS (3) AS SOK**
  - A general education introductory course which provides students with a framework for understanding the historical development of American social welfare, its value base, and its response to minorities, women, children, the elderly, and the disabled.

- **SOW 3302 Introduction to Social Work (3) AS SOK**
  - An introductory course tracing the development of social work as a profession including an examination of the knowledge, skill and attitudinal base of the profession and professional roles and functions.

- **SOW 3401 Research and Statistics For Social Work (4) AS SOK**
  - PR: All provisional major courses. Restricted to full Social Work majors, others by School permission. The purpose of this course is twofold: to familiarize the student with research as it is practiced in the profession of Social Work; and to equip the student with the skills and understanding needed to become a critical consumer of social work research.

- **SOW 4233 Social Welfare: Policy & Program (4) AS SOK**
  - PR: All provisional major courses. SOW 3101. SOW 4341. SOW 4522, SOW 3102, SOW 4343, CR: SOW 4510, SOW 4510L. Restricted to full Social Work majors, others by School permission. An advanced policy course taking an analytical approach to contemporary social welfare policy issues and current social welfare programs.

- **SOW 4341 Multi-Methods of Social Work Practice I: Micro-System Intervention (5) AS SOK**
  - PR or CR: SOW 3101; SOW 4522. All provisional major courses. Restricted to full Social Work majors; others by School permission. First practice course emphasizing development of skills and interventional methods with individuals, families and small groups.

- **SOP 4343 Multi-Methods of Social Work Practice II: Macro-System Intervention (5) AS SOK**
  - PR: All provisional major courses. SOW 3101, SOW 4522, SOW 4343. Course must be taken as part of approved major track. Must be taken as PR. CR: 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 4510 Integrative Seminar (3) AS SOK**
  - PR: SOW 3302, SOW 3203, SOW 3101, SOW 3401, SOW 4341, SOW 4510, SOW 4510L. Restricted to full Social Work majors in senior year. Integrates content and theory from core classes with practice experiences students are having in field placement.

- **SOW 4510L Field Placement (6) AS SOK**
  - PR: SOW 3302, SOW 3203, SOW 3101, SOW 3401, SOW 4341,
SOW 3010, SOW 4522, SOW 4343. CR: SOW 4233, SOW 4510.
S/U only. Supervised field placement consisting of 32 hours per week in the field with a total of 480 clock hours per semester.

SOW 4522 Multicultural America (3) AS SOK
PR: All professional courses. The course focuses on the students' understanding of multicultural and intergenerational issues.

SOW 4900 Directed Readings (1-9) AS SOK
PR: Completion of four social work courses including SOW 3401, upper level standing, and School permission. Content dependent upon student interest and ability. A contract will be jointly developed by student and instructor specifying nature of work to be completed.

SOW 4930C Selected Topics in Social Work (1-4) AS SOK
PR: CC. Restricted to Social Work majors, both graduate and undergraduate; other by School permission. Course is taken as an elective. Various topic course will selectively expand specific social work content areas.

SPA 3002 Introduction to Disorders of Speech and Language SS (3) AS CSD
PR: Junior standing and DPR. The scope of speech-language pathology as a profession and a field of study. An introduction to speech and language disorders, etiologies, major treatment approaches, and research findings.

SPA 3004 Introduction to Language Development and Disorders (3) AS CSD
PR: SPA 3002, SPA 3112 or DPR. This course introduces theoretical concepts and research findings concerning the normal developmental process of language learning as a basis for differentiating developmental delay or disorder of language.

SPA 3011 Introduction to Speech Science (3) AS CSD
PR: SPA 3030, SPA 3101 and SPA 3112. Concentrated study of the acoustic, physiological and perceptual aspects of sound as related to normal and pathological speech communication. Introduction to instrumentation and measurement procedures.

SPA 3030 Introduction to Hearing Science (3) AS CSD
PR: Junior standing, SPA 3101, SPA 3112, SPA 3310. Introduction to the physical basis of hearing including the physics of sound, auditory anatomy and physiology, and psychophysics of hearing.

SPA 3101 Anatomy and Physiology of the Speech and Hearing Mechanisms (3) AS CSD
PR: Junior standing. The neurological and anatomical basis of communication disorders. Comparisons of normal and pathological organic structures and their functional dynamics.

SPA 3112 Applied Phonetics in Communication Disorders (3) AS CSD
PR: Junior standing. Introduction to phonetic analysis of normal and disordered speech, including extensive training in transcription using the International Phonetic Alphabet.

SPA 3310 Introduction to Disorders of Hearing (3) AS CSD
PR: SPA 3030 and SPA 3101. 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: DPR. Introduction to American Sign Language (ASL) as used in the deaf community. General discussion of ASL structure and interpretation, various manual communication systems and philosophies. Emphasis on building a basic vocabulary. One hour of laboratory course work is included. Open to all majors.

SPA 3633 American Deaf Culture (3) AS CSD
PR: SPA 4615C. An overview of American Deaf Culture, including its norms, values and belief systems. This course will also provide insight to deaf history in North America, and the importance of ASL to the culturally Deaf community.

SPA 3650 Fundamentals of Interpreting (3) AS CSD
PR: SPA 4615C. An overview of the profession of interpreting, its standards and settings is provided. It provides a basic practical experience component of interpreting and transliterating skills.

SPA 3651 Intermediate Interpreting/Transliterating (3) AS CSD
PR: SPA 3650. This course reinforces skill development and the principles of interpreting through drill, practice, and role-play assignments. The principles of transliteration will also be demonstrated and practiced through classroom activities. Students will practice from audio taped, and live voice materials, and will learn the techniques of self-assessment through videotaping.

SPA 3653 Overview of Language Learning in Deaf Children (3) AS CSD
PR: Admission to ITT Program. CR: SPA 3653L. This course is restricted to majors only. Overview of language development of deaf children from infancy through young adulthood, including various theories of language development in the deaf and communication/language of the deaf assessment techniques, and interpreting skills relating to learning processes.

SPA 3653L Overview of Language Learning in Deaf Children Lab (1) AS CSD
PR: Admission to ITT Program. CR: SPA 3653. This course is restricted to majors only. An exploration and overview of communication modes and language used in public school settings by deaf children. Includes a study of how systems overlap and a development of flexibility in using different modes and languages, and the implications for interpreting.

SPA 3660 Introduction to Interpreting in Public Schools (3) AS CSD
PR: Admission to ITT Program. CR: SPA 3660L. This course is designed for ISI majors but may be elected by non-majors. This course introduces the overview of the roles and responsibilities of interpreters for the deaf working in public school classes grades K-12 and the overview of historical and current public school practices in educational interpreting in the U.S.

SPA 3660L Introduction to Interpreting in Public Schools Lab (1) AS CSD
PR: Admission to ITT Program. CR: 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 ITT Program. This course is restricted to majors. An overview of hearing science and speech science relating to the educational environment. This course orientates the student to the variables extent of 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 (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, cross-cultural concerns, and creativity are stressed through clinical and practical projects.

SPA 4201 Phonological Development and Disorders (3) AS CSD
PR: SPA 3004, SPA 3111. 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 3111 and SPA 3310. A comprehensive study of the medical and physical aspects of voice disorders. Differential diagnosis, principles of therapeutic intervention, and procedures for children and adults will be stressed.

SPA 4222 Fluency Disorders (3) AS CSD
PR: SPA 4201. A comprehensive study of disfluent speech behavior. Differential diagnosis, principles of therapeutic intervention, and procedures for children and adults will be studied. Major theories related to normal and disfluent speech and the implications for the development of stuttering are also presented.

SPA 4335 Sign Language Codes (3) AS CSD
PR: DPR. A review of the sign systems (SEE I, SEE II, L.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 Counseling (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 3651C, 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 a significant part of ASL. An hour of laboratory course work is included.

SPA 4615C American Sign Language 4 (4) AS CSD
PR: SPA 4614C. This course is a continuation of the study of American Sign Language (ASL) at the highly advanced level. It provides added emphasis on skill development of the language, including storytelling and poetry. One-hour laboratory course work is included.

SPA 4617C Structure of Sign Language (4) AS CSD
PR: SPA 3612C and SPA 4613C. This course is a basic introduction of semiotic and linguistic considerations of American Sign Language (ASL). It includes aspects of phonology, morphology, syntax, semantics, and discourse of ASL. A one-hour laboratory is incorporated into the coursework.

SPA 4626 Fundamentals of Fingerspelling (2) AS CSD
PR: DPR. A concentrated study of technique in fingerspelling emphasizing clarity and rhythm in expression as well as receptive understanding.

SPA 4632 Nature and Needs of the Deaf and Hard of Hearing (3) AS CSD
A study of the effects of auditory disorders upon the organization and expression of behavioral patterns as they relate to motivation, adjustment and personality.

SPA 4652 Legal, Ethical, and Technical Issues of Working with Deaf (3) AS CSD
Restricted to majors. Provides the discussion of ethical, procedural, communication, as well as legal issues and activities that apply their interpreting skills in educational situations. Focuses on the professionalism and integration of their roles into educational settings.

SPA 4654 ASL to English Interpreting (3) AS CSD
PR: SPA 3651. This course focuses on skills development and the principles of sign to voice interpreting and transliterating through drill practice, role-play, and projects. Students will practice from video taped and live materials, and will learn the techniques of self-assessment through videotaping.

SPA 4662 Interpreting in Public Schools I (3) AS CSD
PR: Admission to ITT Program. CR: SPA 4386L. This course is restricted to majors only. This course provides technique for interpreting instructional/non-instructional activities and the development of communication methods used by deaf children. Includes interpreting practices and understanding teaching methods.

SPA 4662L Interpreting in Public Schools I Lab (1) AS CSD
PR: Admission to ITT Program. CR: SPA 4386. 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 analysis of the classroom for accessibility and appropriateness for interpreting.

SPA 4663 Interpreting in Public Schools II (3) AS CSD
PR: SPA 4386, SPA 4386L. CR: SPA 4662L. 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
CR: 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 discussed and discussed in individualized meetings.

SPA 4685 Practicum in Interpreting in Schools (1-6) AS CSD
This course is restricted to ITT majors. This course provides practice sessions in school settings under supervision of an experienced interpreter and course instructor. Each practicum student will work as 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 (3) AS CSD
PR: DPR or SPA 3011 or equivalent. Underlying principles and laboratory exercises in the use of audio recording, acoustic analysis, and clinical instrumentation.

SPA 5204 Advanced Clinical Phonology (3) AS CSD
The principles of generative phonology will be applied to the assessment and treatment of phonological disorders. Emphasis is placed on making a child’s phonology more functional for communication purposes.

SPA 5303 Advanced Hearing Science (3) AS CSD
PR: DPR. The study of the physiologic acoustics of the auditory periphery; the neuroanatomy and electrophysiology of the central auditory system; and psychoacoustic principles as they relate to clinical audiologic measurement paradigms.

SPA 5312 Peripheral and Central Auditory Tests (4) AS CSD
PR: DPR. The study of behavioral and electrophysiologic clinical tests designed to assess the functions of the peripheral and the central auditory system. Tests that incorporate non-speech stimuli and those that utilize speech stimuli will be included.

SPA 5528 Aural Rehabilitation: Adults (3) AS CSD
PR: DPR. This course is designed to provide information about and strategies for aural rehabilitation intervention with hearing-impaired adults. Topics covered include: speech reading, auditory training, hearing and assistive listening devices.

SPA 5608 Language-Learning in the School-Age Years (3) AS CSD
PR: SPA 4201 and DPR. Metalinguistic and metacognitive development are linked to the interactional demands of classroom and clinical discourse; observational tools are applied to evaluation and intervention planning.

SPA 5506 Speech-Language Pathology and Audiology Practicum (1-8) AS CSD
PR: DPR. Participation in speech-language pathology and audiology practicum in the University Communication Disorders Center and selected field settings.

SPA 5552 Diagnostic Principles and Practices (3) AS CSD
PR: Admission to the graduate program or DPR. The administration, evaluation, and reporting of diagnostic tests and procedures used in assessment of speech and language disorders.

SPC 2541 Persuasion SS (3) AS SPE
Examines the role of persuasion in public and social life. Students will be introduced to key concepts and theories of persuasion from a variety of historical and contemporary perspectives. Students will use these concepts to create, analyze, and respond to persuasive messages.

SPC 2600 Public Speaking SS (3) AS SPE
The nature and basic principles of human communication; emphasis on improving speaking and listening skills common to all forms of oral communication through a variety of experience in public discourse.

SPC 3212 Communication Theory (3) AS SPE
PR: 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 foundations and historical evolution of major concepts, issues, theories, and approaches to the study of rhetoric from Plato to recent contemporary theorists.

SPC 3301 Interpersonal Communication SS (3) AS SPE
A study of interpersonal communication in informally structured settings with emphasis on the understanding, description, and analysis of human communication.

SPC 3425 Group Communication 6A (3) AS SPE
PR: Junior standing or CI. An introduction to theory and research in group communication. Group discussions and communication exercises to increase awareness of the dynamics of human communication in small group settings.

SPC 3513 Argumentation and Debate (3) AS SPE
PR: Junior standing or CI. Study of principles of argumentation as applied in oral discourse, analysis of evidence and modes of reasoning. Practice in debate preparation and delivery.
SPC 3602 Advanced Public Speaking (3) AS SPE
PR: SPC 2600 or CI. Study and application of communication strategies in speaking extemporaneously and from manuscript. The course includes study of selected public addresses as aids to increased understanding of speaking skills.

SPC 3631 Rhetoric of the Sixties (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 3653 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 use in 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, which 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 4310 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 families 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, family structure, family systems, family development, and family and cultural members. Focus on attachment and loss in romantic, family and group relationships.

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 4710 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 course.

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. Communication major. Exploration of selected topics of current significance to the several areas 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 5238 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 5393 Topics in Discourse Analysis (3) AS SPE
Variable topics course.

SPN 1121 Beginning Spanish I (4) AS WLE
CR: 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 1121L Beginning Spanish I Laboratory (1) AS WLE
CR: 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. SU only. Laboratory designed to offer additional practice using various instructional technologies and media.

SPN 1130 Accelerated Spanish For Near-Native Speakers I and II (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 II (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 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 2240 Conversation I (3) AS WLE
PR: SPN 2201. Not open to native or near-native speakers of Spanish. For development of basic conversational skills.

SPN 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 1121L. Prior departmental approval and early registration are required. An intensive study-travel program in a Spanish-speaking country.

SPN 2330 Advanced Spanish Grammar and Composition (3) AS WLE
PR: SPN 2201 or equivalent. 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 oral proficiency and the grammatical problems of such speakers.

SPN 3341 Advanced Spanish for Native Speakers II (3) AS WLE
PR: SPN 3340. May count as Spanish major elective. Continuation of SPN 3340. Course for native and near-native speakers of Spanish due to home environment and/or residence in a Spanish speaking country, but with limited or no training in the language. Emphasis on grammar problems affecting such speakers.

SPN 3440 Spanish for Business and International Trade I (3) AS WLE
PR: SPN 2201 or equivalent. A study of vocabulary and business practices of the Spanish speaking world. Overview of cultural differences within the Spanish speaking world, with emphasis on their impact on business and international trade.

SPN 3441 Spanish for Business and International Trade II (3) AS WLE
PR: SPN 3440 or equivalent. Open to Spanish and Business majors and minors. Continuation of SPN 3440. A study of vocabulary and business practices of the Spanish speaking world. Overview
of cultural differences within the Spanish speaking world, with emphasis on their impact on business and international trade.

SPN 3500 Spanish Civilization (3) AS WLE
PR: SPN 2201 or equivalent. The culture and civilization of Spain. For majors and non-majors.

SPN 3520 Spanish American Civilization (3) AS WLE
PR: SPN 2201 or equivalent. Readings and discussions on the culture and civilization of Spanish America. For majors and non-majors.

SPN 4301 Expository Writing (3) AS WLE
PR: SPN 3300 or SPN 3340. 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 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 3560 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.

SPW 4000 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 I (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 Darío.

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 16th century through the 18th century. Emphasis on primary sources.

SPW 5355 Spanish American Drama and Poetry (3) AS WLE
PR: SPW 4131. Major works of all genres. Emphasis on modern writers.

SPW 5387 Spanish American Prose (3) AS WLE
PR: SPW 4131. Emphasis on the gauchito theme and contemporary prose fiction.

SPW 5388 Golden Age Poetry and Drama (3) AS WLE
PR: SPW 4100. Lope de Vega, Tirso, Calderon, and others.

SPW 5405 Medieval Literature (3) AS WLE
PR: SPW 4100 or equiv. Course gives an in-depth study of the lives and works of the 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 (3) AS WLE
PR: Upper-level or GS. Study of an author, movement, or theme.

SSE 4313 Teaching Elementary Grades Social Studies (3) ED EDE
PR: Admission to College of Education or CI. This course is designed to study techniques and strategies employed 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 methods, techniques, and materials that achieve concrete outcomes. Theoretical foundations of social studies are also examined.

SSE 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. Field work is required.

SSE 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.

SSE 4580 Global And Multicultural Perspectives in Education MW (3) ED EDW
PR: EDG 3604 and EDG 4620, or DPR. Examination of the major issues surrounding global and multicultural perspectives in education. Available to non-education majors.

SSE 4600 Reading and Basic Skills in the Social Studies Class (3) ED EDW
Reading skills and other basic skills as applied to the social studies are examined. Students plan and present instruction appropriate to the social studies classroom. Fieldwork in middle or senior high schools is required. Restricted to majors.

SSE 4640 Communication Skills in the Social Sciences (2) ED EDW
PR: SSE 4333, SSE 4334. This course emphasizes preparation for instruction and demonstration of instructional techniques in social sciences covered in SSE 4333 and SSE 4334 with an emphasis on students developing their communication, presentation, and organizational skills.

SSE 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.

SSE 4936 Senior Seminar in Social Science Education (2) ED EDW
PR: Senior standing; CR: SSE 4940. Synthesis of teacher candidate's courses and preparation for the professional interview and application process.

SSE 4940 Internship: Social Science Education (1-12) ED EDW
CR: SSE-4936. S/U only. Students plan and present instructional plan(s) appropriate to middle and secondary school levels demonstrating command of the course content.

SSE 5332 Methods & Strategies in Social Science Education (3) ED EDI
Social studies methods and strategies are examined with an emphasis on the secondary school environment. The teaching profession, school settings, and current issues are examined. Students are expected to plan and present instructional plan(s) appropriate to senior high school demonstrating command of the course content.

SSE 5335 Teaching Social Science Themes (3) ED EDI
PR: SSE 5331, 5332; SSE Majors only. The course is a laboratory-based, capstone course in which the knowledge, skills, and dispositions learned in SSE 5333 and SSE 5334 are brought together and demonstrated by students teaching elementary school content using the thematic approaches adopted by the National and State accrediting bodies.

SSE 5641 Reading and Basic Skills in the Content Area (3) ED EDI
UNIVERSITY OF SOUTH FLORIDA - 2004/2005 UNDERGRADUATE CATALOG
Reading skills and the other basic skills as applied to the social sciences are emphasized. Students are expected to plan and carry out a present instructional plan(s) appropriate to the social sciences classroom and to demonstrate the command of the course content. Fieldwork in a middle school is required.

SSE 561 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 purchasing goods and services in the Tampa Bay area. Focus of the instruction is on the application of content to K-12 instructional programs.

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; point 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-parametric tests. The course presents statistics with the view that numbers are a limited, but important aspect of understanding the world. Draws concepts and hypotheses 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 and continuous probability distributions: binomial, Poisson, uniform, normal, t, chi-square and F; point estimation, confidence limits, hypothesis testing, correlation analysis and linear regression. Emphasis on applications to social sciences, life sciences, physical sciences, engineering and business.

STA 5166 Computational Statistics I 3A (3) AS MTH
PR: STA 4321 and CGS 3422, or CI. Statistical analysis of data by means of statistical software packages. Regression, ANOVA, discriminant analysis, and analysis of categorical data. Emphasis is on inter-relation between statistical theory, numerical methods, and analysis of real life data.

STA 5526 Sampling Techniques (3) AS MTH

STA 5528 Mathematical Statistics (3) AS MTH
PR: STA 5446. Sample distribution theory, point & interval estimation, optimality theory, statistical decision theory, and hypothesis testing.

STA 5446 Probability 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 5446 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. Traverse, leveling, control surveying, base line 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 3015 Contemporary Sociology (3) AS SOC
PR: SYA 3010 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 relations.

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 framing social problems as public issues and how these 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 4930 Topics in Sociology (3) AS SOC
Selected specialized topics in Sociology. Topics such as AIDS in society, drugs in society, in education, sociology of childhood, public life, socio-biology. Content will vary by semester and by section. See class schedule for specific contents each semester. This course, in different content areas, may be repeated for credit.

SYA 4935 Senior Seminar MW (3) AS SOC
PR: Senior standing, SYG 2000, SYA 3010, SYA 3300 plus 6 hours of Sociology electives. Major only. DPR. The opportunity for senior Sociology majors to apply theory and methods to a selected topic of relevance in today’s society. Topic changes by instructor.

SYA 4949 Sociological Internship (1-6) AS SOC
PR: Senior or graduate standing in Sociology plus CI. Supervised placement in community organization or agency for a minimum of 10 hours of volunteer work per week, and a weekly seminar on applying sociological skills and methods in the placement setting.

SYD 3441 Peasant Perspectives AF (3) AS SOC
PR: SYG 2000 or 6 hours of other Social Sciences Gen. Ed. coursework or CI. Examines the applicability of sociological concepts to peasant life around the world, and explores the roles played by “western” societies in creating and sustaining the conditions under which peasants live.

SYD 3700 Racial and Ethnic Relations SS HP (3) AS SOC
PR: SYG 2000 or 6 hours of Sociology and history courses. Required for Sociology majors and minors. An examination of how activists, media, politicians, and scientists construct public images of social problems; analysis of the process of framing social problems as public issues and how these images of social problems shape the characteristics of social service agencies.

SYD 4410 Urban Sociology (3) AS SOC
The social structure of the community in modern industrial societies.

SYD 4411 Urban Life (3) AS SOC
PR: SYG 2000 This course provides a number of insights into how living in cities has changed throughout history, how it varies culturally, and how it has been theorized in sociology.

SYD 4800 Gender and Society (3) AS SOC
Historical and current issues surrounding gender in America. Emphasis on exploring the causes, 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.

SYG 2010 Contemporary Social Problems SS (3) AS SOC
The analysis of social issues and dimensions of major social 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 AF (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, sport, and sexuality through short stories, poetry, and scholarly research.

**SYP 3120 Sociology of Families (3) AS SOC**
With a goal to understand American families in the present, this course will explore 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 should do for their members as well as social policies related to families.

**SYP 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, and use and impact of religious discourse in daily lives, social movements motivated by religious beliefs.

**SYP 3500 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 networks.

**SYP 3530 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.

**SYP 4250 Sociology of Education (3) AS SOC**
PR: SYG 2000 Application of sociological theory to the social institution of education. Primary attention directed toward the social organization of educational systems.

**SYP 4300 Political Sociology (3) AS SOC**
PR: SYG 2000 or CI. An examination of the social factors that affect government, politics, and political behavior.

**SYP 4370 Occupation 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.

**SYP 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.

**SYP 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 intersections, 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.

**SYP 3562 Family Violence (3) AS SOC**
An exploration of the complexity of the causes and consequences of physical and emotional violence among family members. Topics include the meanings and behaviors of violence, the process of help-seeking, and social interventions for offenders and victims. Open to nonmajors.

**SYP 4420 Consumer Culture MW LW (3) AS SOC**
PR: SYG 2000 or CI. The exploration of Americans’ purchasing behavior connects to larger historical shifts in our economy, including disenchanted, alienation, inequality, and the rise of the credit card society.

**SYP 4510 Sociological Aspects of Deviance (3) AS SOC**
The examination of the social construction of deviance: how deviance is defined, implications of deviance designations. Applications of theories of deviance to questions such as motivations of deviants and implications of criminal justice processing of deviants.

**SYP 4530 Sociology of Juvenile Delinquency (3) AS SOC**
Sociological issues in defining delinquency; the nature of adolescence and delinquency; sociological theories of the causes of delinquency; types and consequences of social control applied to delinquents.

**TAX 4001 Concepts of Federal Income Taxation (3) BA ACC**
PR: ACG 2501. 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 with a grade of “C” or better (not C-). Tax issues encountered by small businesses. Includes tax planning, capital acquisition, tax compliance and tax alternatives.

**THE 2010 Introduction to Theatre (3) VP TAR**
An introduction to the art of theatre as part of the larger context of the nature of art itself. The approach will be both chronological and multi-cultural. Required of all theatre majors.

**THE 2090 Languages of the Stage FA (3) VP TAR**
Focuses on the variety of approaches to theatrical performance. The purpose of this course is to develop an awareness of the range of contemporary performance practices through a combination of lecture, discussion, theatre attendance, and experiential learning. Provides opportunities for critical thinking and reflection about theatre in contemporary society. Restricted to non-theatre majors.

**THE 2305 Script Analysis (3) VP TAR**
PR: Sophomore standing, THE 2020. This course teaches theatre students the techniques of close reading of dramatic texts.

**THE 3110 Theatre History MW (3) VP TAR**
PR: Sophomore standing, THE 2020. The study of theatrical production 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) VP TAR**
PR: Sophomore standing, 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 4174 New British Theatre and Drama MW LW (3) VP TAR**

**THE 4180 Theatre Origins MW LW (3) VP 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 4480. Open to senior non-majors with CI. An analysis of the development of theatre out of myth, ritual, and liturgy. Emphasis placed on what attempts to understand the resulting phenomena (e.g. Aristotle’s Poetics) can teach us about the nature of our art. Either THE 4180 or THE 4562 is required of all theatre majors.

**THE 4264 History Of Costume (3) VP TAR**
PR: Sophomore standing. Open to upper level non-majors with CI. A survey of clothing and dress from Ancient Egypt to the 20th Century with an emphasis on cultural and social influences. (A requirement in the design track/costume.)

**THE 4266 Architecture And Decor (3) VP TAR**
PR: Sophomore standing. Open to upper level non-majors with CI. A survey of architecture and decoration from Ancient Egypt to the 20th Century. (A requirement in the design track/scenic.)

**THE 4320 Theatre Of Myth And Ritual/Northern European (950-1600) & Oriental (400-1200) 6A MW LW (3) VP TAR**
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. An introduction to the interrelationship of myth, ritual, and theatre. Considers northern European liturgical and secular plays as compared with Hindu, Chinese, and Japanese drama.

**THE 4330 Shakespeare For The Theatre 6A MW LW (3) VP TAR**
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. An investigation into the interrelationship of myth, ritual, and theatre. Considers northern European liturgical and secular plays as compared with Hindu, Chinese, and Japanese drama.

**THE 4330 Shakespeare For The Theatre 6A MW LW (3) VP 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 4345 The 19th Century Theatre Revolution 6A MW LW (3) VP 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’Neil And After 6A MW LW (3) VP 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. Includes materials in the American Theatre from 1895 to 1964.

**THE 4434 Caribbean Theatre 6A MW LW (3) VP 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 shape the culture of the Caribbea, 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) VP TAR
PR: TPA 3110 or TPA 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 Comedy Of The Classic And Neo-Classic Stage 6A LW (3) VP TAR
PR: TPA 3110 or TPA 3111. Open to upper level non-majors with CI. A study of comedic function in scripts from Greek and Roman. Restoration and French Neoclassical and late 17th century and other plays from the late 18th and late 19th centuries which reflect similar characteristics.

THE 4480 Drama-Special Topics (3) VP TAR
PR: TPA 3110 or TPA 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 4482 Contemporary Performance Theory 6A MW LW (3) VP TAR

THE 4593 Honors Seminar (2) VP TAR
Enrollment limited to upper level majors who have been formally admitted to the department honors program. Not available S/U. Readings in the literature, history and theory of the stage in preparation for Theatre Honors Practicum. Past topics have included New German Theatre, Popular Theatre, New American Theatre, Jacobean Theatre.

THE 4594 Honors Practicum (3) VP TAR
PR: TPA 3110. 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) VP TAR
PR: TPA 4594. A practical or written thesis related to the seminar and practicum and approved by the departmental honors committee.

THE 4761 Methods of Teaching Theatre for Adolescents (3) VP TAR
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) VP TAR
Independent study in the various areas of Theatre. Course of study and credits must be assigned prior to registration.

THE 4930 Selected Topics In Theatre (1-8) VP TAR
PR: CI. The content of the course will be governed by student demand and instructor interest. May be lecture or class discussion or studio format.

THE 5909 Directed Studies (1-6) VP TAR
PR: CI and CC. Independent studies in the various areas of Theatre. Course of study and credits must be assigned prior to registration.

THE 5931 Selected Topics In Theatre (1-8) VP TAR
PR: CI. The content of the course will be governed by the student demand and instructor interest. May be lecture or class discussion or studio format.

TPA 2200 Introduction to Technical Theatre I (3) VP TAR
CR: TPA 2290L or CI. An introductory course in technical production including coursework in the areas of scenic construction, theatre production/organization, and sound. Required for Theatre majors. Requires sequential semester enrollment with TPA 2211 and TPA 2291L. Open to non-majors.

TPA 2211 Introduction to Technical Theatre II (3) VP TAR
CR: TPA 2291L or CI. An introductory course in technical production including stage lighting, costume construction, and sound. Required for Theatre majors. Requires sequential semester enrollment with TPA 2211 and TPA 2291L. Open to non-majors.

TPA 2248 Workshop In Stage Makeup (1) VP TAR
Beginning theory and practice in make-up for the stage. Open to non-majors. Theatre majors given preference. A studio course.

TPA 2291L Technical Theatre Lab I (1) VP TAR
CR: TPA 2211 or CI. A practical laboratory involving the pre-performance preparation of all technical aspects of a major production such as: painting, sewing, lighting, and sound. Students are assigned two areas of study per semester. Required of all Theatre majors. Open to non-majors.

TPA 2292 Production Involvement I (1) VP TAR
PR: TPA 2200, TPA 2290L, TPA 2211, TPA 2291L or CI. The rehearsal, construction, and performance of major theatrical works. Assignments are made by a faculty committee following the students completion of a PI request form, available in the Theatre Office, and enrollment in this course.

TPA 2293 Production Involvement II (3) VP TAR
PR: TPA 2200, TPA 2290, TPA 2290L and TPA 2291L. Open to non-majors. This course will include lectures, demonstrations, individual student presentations, and studio activities. The course work will provide an introduction to the various aspects of design including: two and three dimensional design, basic presentation and visual communication skills, research, and project analysis/organization.

TPA 3008 Introduction to Design II (3) VP TAR
PR: TPA 3007. This course will include lectures, demonstrations, individual student presentations, and studio activities. The course work will provide an introduction to the various aspects of design including: two and three dimensional design, basic presentation and visual communication skills, research, and project analysis/organization. Open to non-majors.

TPA 3028 Drafting and CAD I (3) VP TAR
PR: TPA 2200, TPA 2211, TPA 2290L and TPA 2291L. The course will include lectures, demonstrations, individual student presentations, and studio activities. The course work will provide an opportunity to develop skills and techniques in the visual presentation of various areas of design and technical draftings. An introduction to all Design Track Theatre majors. Open to non-majors.

TPA 3221 Costume Construction (3) VP TAR
PR: TPA 3208 or CI. A practical course in the drafting of patterns for dressing the actor. Materials, skills, and techniques for construction of costumes and costume accessories will be treated. Included topics are millinery, footwear, jewelry, masks, armor, courstesy; both period and modern.

TPA 3251 Drafting and CAD II (3) VP TAR
PR: TPA 3208. Continuation of TPA 3208. The course will include lectures, demonstrations, field trip(s), individual student presentations, and studio activities. The course work will provide an opportunity to develop your skills and techniques in the visual presentation of various design and technical draftings. Open to non-majors.

TPA 3265 Sound For The Stage (3) VP TAR
PR: TPA 2200, TPA 2290L, TPA 2211, and TPA 2291L. Open to non-majors with CI. Basic study of audio components, fundamental properties of sound, microphone, channel recording, editing, reproduction and reinforcement. Methods and techniques used in theatre to create sound effects.

TPA 3296 Design Practicum (2) VP TAR
PR: TPA 3008. This is a studio/laboratory course 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 costume, 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.

TPA 3301 Stage Management (2) VP TAR
PR: TPA 2200, TPA 2290L, TPA 2211, and TPA 2291L. Open to non-majors with CI. A practical course in the working organizational function of the stage manager in theatre, dance, opera, and other live performance situations.

TPA 3340 Puppetry Performance And Production (4) VP TAR
PR: TPA 2200, TPA 2290L, TPA 2211, and TPA 2291L. Open to non-majors with CI. The creation, building, rehearsal, and performance of puppet theatre.

TPA 4011 Design Studio I (3) VP TAR
PR: TPA 3008 and TPA 3208 plus two of TPA 3231, TPA 3221, or TPA 3251. TPA 4011 will include studio design project activities in the areas of costume, scenic design, and scenic design. The course work will stress the nature of collaborative work and the various stages and processes involved with the development of a design from the first meeting to the final paper/model design.

TPA 4012 Design Studio II (3) VP TAR
PR: TPA 4011. This course will include studio design project
activities in the areas of costume, lighting, and scenic design. The course will cover the nature of collaborative work and the various stages and processes involved with the development of a design from the first meeting to the final paper/model design. Evaluation of the project will emphasize the process followed in the development of the design including initial sketching, research, and production concept. The course will include seminar (production) discussions, lectures, demonstrations, individual and group work, and individual student presentations.

TPP 4210 Design III (3) VP TAR
PR: TPP 4012. This course will include studio design project activities in an individual’s selected primary and secondary areas of costume, lighting, and/or scenic design. The course will stress the development of collaborative working in the various stages and processes involved with the development of a design from the first meeting to the final paper/model design.

TPA 4273 Stage Properties: Techniques And Materials Studio (2) VP TAR
PR: TPA 3007. Open to upper level non-majors with CI. A practical course in the painting of stage scenery: media and application.

TPA 4289 Advanced Design Practicum (3) VP TAR
PR: TPA 4011. This is a studio/laboratory course 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 costume, 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 2110 Voice-Body-Improvisation (3) VP TAR
Exploring the elements basic to acting skills, a participation course. Required of all theatre majors. Open to non-majors.

TPP 2190 Studio Theatre Performance I (1) VP TAR
PR: TPP 2110, THE 2020. 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 2500 Body Disciplines (2) VP TAR
PR: TPP 2110. A laboratory course in various disciplines or systems and understanding the body’s motive powers, with focus on their use in advanced vocal and movement techniques. PR: TPP 3121 Improvisation I (3) VP TAR
PR: TPP 2110. An intensive study in improvisation as an enhancement of the actor’s skill. Exercises and theatre games as flexible forms which accommodate improvisation and practical application are examined and used to develop group creativity.

TPP 3155 Scene Study I (3) VP TAR
PR: TPP 3090. 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 3921 Acting Studio II (8) VP 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 4180 Advanced Scene Study (3) VP TAR
PR: Audition and TPP 3155 or TPP 3921. An acting workshop focusing on character development and theatrical techniques over a sustained period leading toward a project showing at semester’s end.

TPP 4193 Studio Theatre Performance II (1) VP TAR
PR: TPP 2190. 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) VP TAR
PR: TPP 3155 or TPP 3921. Preparation for professional audition; discussion of professional objectives.

TPP 4310 Directing I (3) VP TAR
PR: TPP 3155 or TPA 3230. An elective sequence in directing. A workshop course in which the student first encounters the basic tasks of the director by preparing and directing one or two scenes and then progresses to more complex scene work in a variety of styles and finally proceeds to the short play or theatre piece.

TPP 4311 Directing II (3) VP TAR
PR: TPP 4310 and CI. An elective sequence in directing. A workshop course in which the student first encounters the basic tasks of the director by preparing and directing one or two scenes and then progresses to more complex scene work in a variety of styles and finally proceeds to the short play or theatre piece.

TPP 4600 Writing For The Theatre (3) VP 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 character, plot, and stage dynamics. Normally the aim would be to complete several performance-worthy self-contained scenes.

TPP 4920 Senior Workshop For Actors (3) VP TAR
PR: TPP 2500, TPP 3790, TPP 3155, or TPP 3921. A workshop in advanced vocal and movement techniques.

TPP 4923 Music Theatre Workshop (3) VP TAR
PR: TPP 2110 and audition. Open to non-majors by audition only. Exploration of Musical Theatre materials and performance techniques for the performer. Individual and ensemble work.

TSL 3471 Language Testing (3) AS WLE
PR: Upper-level standing. Designed to introduce and prepare the enrollee in the various facets of teaching English as a foreign language in the overseas setting. It will include aspects of teaching verbal skills and comprehension as well as writing. It involves a practicum at the English Language Institute on campus.

TSL 5321 ESOL Strategies for Content Area Teachers (3) AS WLE
Course designed for public school teachers working with limited English Proficient (foreign) students in the classroom. The new ESOL requirements specify that this course be offered to content area teachers and to ESOL teachers.

TSL 5371 Methods of Teaching English As A Second Language (3) AS WLE
Analysis of the methods of teaching English pronunciation and structure to speakers of other languages. The content of the course will be governed by student demand and instructor interest.

TSL 3580 Special Skills In Movement (2) VP 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.

TSL 3790 Voice Preparation For The Actor (3) VP TAR
PR: TPP 3790 or CI. May be repeated for credit. Concentrated laboratory on freeing the breathing function, developing body and oral resonance, and strengthening muscles used on the formation of speech sounds.

TSL 3920 Acting Studio I (8) VP 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.
WST 3440 Women and Social Action  (3) AS WST
PR: TTE 4004 or equivalent. Techniques for the geometric route design of surface transportation systems: horizontal and vertical alignments; spiral curves, superelevations and earthwork analysis; drainage, soils, and a rigid and flexible pavement design; right-of-way acquisition and Environmental Impacts; site layout & design, and operation of alternate models including bus, air, rail, water, and pipeline facilities and terminals.

TTE 5205 Traffic Systems Engineering  (3) EN EGX
PR: TTE 4004 or equivalent. Traffic models, intersection analysis, capacity analysis, data methods collection, parking studies, volume and speed studies, freeway management, and advanced technologies.

TTE 5501 Transportation Planning and Economics  (3) EN EGX
PR: College Algebra & C. Fundamentals of urban transportation planning: trip generation, trip distribution, modal split, traffic assignment. Introduction to environmental impact analysis, evaluation an choice of transportation alternatives.

URP 4050 City Planning and Community Development  (3) AS POL
An introduction to the development, role, and components of city planning, and the political and actual policies of government in attempting to regulate or control urbanization.

URP 4052 Urban and Regional Planning  (4) AS WST
PR: GEO 3402, GEO 3602. The geographic foundations of the modern city, metropolitan development, and the trend toward megalopolis. Examined are the political problems of conflicting jurisdictions at the local, county, state, national, and international levels.

URS 3002 Introduction to Urban Studies  (3) AS ISS
An interdisciplinary introduction to the process of urbanization in the United States and the diverse community that it has created. Study of the Tampa Bay region is emphasized.

VIC 3001 Introduction to Visual Communications  (3) AS COM
PR: MMC 2100 and MMC 3602. Survey of visual communication theory, techniques, and contemporary application in the visual media. Critical examination of visual communication in newspapers, magazines, television, motion pictures and new media.

VIC 3943 Visual Communication Practicum  (1) 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 academic credit 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, anthropological perspectives.

WST 3210 European Feminist History: Pre-18th Century 6A HP  (3) AS WST
Survey of European feminist history prior to the 18th century (focusing primarily on Western Europe). Examines women’s lives, roles, ideas, as well as origins of Western attitudes toward relation of power to gender, race and class. No prerequisites.

WST 3220 European Feminist History: Enlightenment to the Present HP (3) AS WST
A survey of European feminist history from the 18th century through the 20th century (focusing specifically on Western Europe). Examining women’s lives, roles and ideas, as well as the dominant attitudes toward women over this time period.

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 occupational environments; consider the position of women regarding environmental issues; examine role that women can and do play in effecting environmental change; and analyze concepts related to ecofeminism.

WST 3311 Issues in Feminism SS  (3) AS WST
Survey of major issues relevant to the female experience: marriage, law, and politics; the family, sexuality, work, creativity. Survey of major issues relevant to the female experience: marriage, law, and politics; the family, sexuality, work, creativity. 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 4110 Third World Women Writers 6A MW  (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.

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 develop the roots of contemporary feminist movements. (May also be taken for credit in Philosophy.)

WST 4561 Contemporary Feminist Theory MW  (3) AS WST
PR: Completion of one upper division Women’s Studies course. An examination to and an explication 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 written contract signed by student and instructor of choice. To provide advanced students with interdisciplinary research experience in areas of specific interest.

WST 4930 Seminar in Women’s Studies SS AF  (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 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 5080 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.

WST 5825 Internship in Women’s Studies (3) AS WST
PR: Must have completed a basic understanding of relationships between women’s physical, health and occupational environments; consider the position of women regarding environmental issues; examine role that women can and do play in effecting environmental change; and analyze concepts related to ecofeminism.

WST 5940 Internship in Women’s Studies (3) AS WST
A student may write an approved Internship Proposal at least 24 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 5980 Internship in Women’s Studies (1-4) AS WST
PR: DPR. Study of current research methods and scholarship on women from a multidisciplinary perspective.

WST 8000 Internship in Women’s Studies (3) AS WST
An approved internship placement in an academic setting at 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 the vertebrates. Phylogenetic systematics (cladistics) will be used as the basis for determining evolutionary relationships of organisms. Monophyletic groupings provide a framework for examining behavior, physiology, and ecology in an explicit evolutionary context. Vertebrates common to Florida and the southeastern United States will be emphasized.

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. Not for major's credit. 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.

ZOO 4603 Animal Embryology (4) AS BIO

ZOO 4753C Histology (4) AS BIO
PR: PCB 3023 and PCB 3063. Comparative approach to the study of tissues and the relation of their structure and function. Lec.-lab.

ZOO 5235 Parasitology (3) AS BIO
PR: MCB 3020C, PCB 3023, PCB 3043, PCB 3063, ZOO 3205C, ZOO 4753C, CI. Fundamentals of animal parasitology and parasitism, the biology of selected animal parasites, including those of major importance to man.

ZOO 5456 Ichthyology (3) AS BIO
PR: Senior or GS in Biology; ZOO 3323C, CI. PCB 4674 is suggested. Evolution, systematics, structure, behavior, physiology, and ecology of fishes.

ZOO 5456L Ichthyology Lab (1) AS BIO
CR/PR: ZOO 5456 Laboratory portion of Ichthyology relating to evolution, systematics, structure, behavior, physiology and ecology of fishes.

ZOO 5463C Herpetology (4) AS BIO
PR: CI. Major aspects of amphibian and reptilian biology emphasizing fossil history, evolutionary morphology, sensory physiology, life history and reproductive behavior. Lec.-lab. Field trip.

ZOO 5555C Marine Animal Ecology (4) AS BIO
PR: PCB 3043, senior standing, CI. Investigation of energy flow, biogeochemical cycles, and community structure in marine environments. Lec.-lab.