### College and Department Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC</td>
<td>Architecture and Community Design</td>
</tr>
<tr>
<td>AFA</td>
<td>Africana Studies</td>
</tr>
<tr>
<td>AMS</td>
<td>American Studies</td>
</tr>
<tr>
<td>ANT</td>
<td>Anthropology</td>
</tr>
<tr>
<td>AST</td>
<td>Astronomy</td>
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<tr>
<td>BIO</td>
<td>Biology</td>
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<tr>
<td>BIS</td>
<td>Bachelor of Independent Studies</td>
</tr>
<tr>
<td>CEL</td>
<td>Community Experiential Learning</td>
</tr>
<tr>
<td>CHM</td>
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</tr>
<tr>
<td>CJP</td>
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<tr>
<td>COM</td>
<td>Communication and Community Affairs</td>
</tr>
<tr>
<td>CSD</td>
<td>Communication Sciences and Disorders</td>
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<td>ENG</td>
<td>English</td>
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<td>ESP</td>
<td>Environmental Science and Policy</td>
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<tr>
<td>GEY</td>
<td>Gerontology</td>
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<td>GLY</td>
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<tr>
<td>GPY</td>
<td>Geography</td>
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<tr>
<td>HTY</td>
<td>History</td>
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<tr>
<td>HUM</td>
<td>Humanities</td>
</tr>
<tr>
<td>IAS</td>
<td>Interdisciplinary Arts and Sciences</td>
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<tr>
<td>INT</td>
<td>International Studies</td>
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<td>Interdisciplinary Social Sciences</td>
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<td>LIS</td>
<td>Library and Information Science</td>
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<tr>
<td>MLL</td>
<td>Modern Languages and Linguistics</td>
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<td>MSC</td>
<td>Marine Science</td>
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<td>MTH</td>
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<td>PAD</td>
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<td>PHI</td>
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### Business Administration (BA)

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<tbody>
<tr>
<td>ACC</td>
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<td>ECN</td>
<td>Economics</td>
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<td>FIN</td>
<td>Finance</td>
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<td>GBA</td>
<td>General Business Administration</td>
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<td>MAN</td>
<td>Management</td>
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<td>MBA</td>
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<td>MKT</td>
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<td>QMB</td>
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### Education (ED)

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<td>EDC</td>
<td>Curriculum</td>
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<td>EDE</td>
<td>Elementary Education</td>
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<tr>
<td>EDF</td>
<td>Psychological and Social Foundations</td>
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<td>EDG</td>
<td>Counselor Education</td>
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<td>EDH</td>
<td>Junior College Education</td>
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<tr>
<td>EDI</td>
<td>Secondary Education - General</td>
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<td>EDJ</td>
<td>Physical Education - Elective</td>
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<td>EDK</td>
<td>Computer Education</td>
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<td>EDM</td>
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<td>EDO</td>
<td>Mathematics Education</td>
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<tr>
<td>EDP</td>
<td>Physical Education - Professional</td>
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<td>EDQ</td>
<td>Measurement-Research</td>
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<tr>
<td>EDR</td>
<td>Reading Education</td>
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### Engineering (EN)

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<td>ECH</td>
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<td>EGB</td>
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<td>EGE</td>
<td>Electrical Engineering</td>
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<td>EGR</td>
<td>Mechanical Engineering</td>
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<td>EGS</td>
<td>Industrial and Management Systems</td>
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<td>EGX</td>
<td>Civil and Environmental Engineering</td>
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### Honors College (HC)

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<td>HON</td>
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### Medicine (ME)

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<td>MSG</td>
<td>Medical Sciences</td>
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### Nursing (NU)

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<td>NUR</td>
<td>Nursing</td>
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### Public Health (PH)

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<tbody>
<tr>
<td>CFH</td>
<td>Community and Family Health</td>
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<tr>
<td>EOH</td>
<td>Environmental and Occupational Health</td>
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<tr>
<td>EPB</td>
<td>Epidemiology and Biostatistics</td>
</tr>
<tr>
<td>HPM</td>
<td>Health Policy and Management</td>
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<td>PHC</td>
<td>Public Health</td>
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### Undergraduate Studies (US)

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<th>Code</th>
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<tr>
<td>AFR</td>
<td>Aerospace Studies - Air Force ROTC</td>
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<tr>
<td>COE</td>
<td>Cooperative Education</td>
</tr>
<tr>
<td>EIT</td>
<td>Bachelor of Information Technology</td>
</tr>
<tr>
<td>MIS</td>
<td>Military Science - Army ROTC</td>
</tr>
<tr>
<td>NVY</td>
<td>Naval Science - Navy ROTC</td>
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<tr>
<td>STL</td>
<td>Student Learning Development</td>
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### Visual and Performing Arts (VP)

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<th>Code</th>
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<tbody>
<tr>
<td>ART</td>
<td>Art and Art History</td>
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<tr>
<td>DAN</td>
<td>Dance</td>
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<tr>
<td>EDD</td>
<td>Theatre Education</td>
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<tr>
<td>FAI</td>
<td>Interdisciplinary Fine Arts</td>
</tr>
<tr>
<td>MUS</td>
<td>Music/Music Education</td>
</tr>
<tr>
<td>TAR</td>
<td>Theatre</td>
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### ACG 2021 Principles of Financial Accounting (3) BA ACC

Study of basic accounting principles including the recording and reporting of financial activity. The preparation and interpretation of financial statements.

### ACG 2071 Principles of Managerial Accounting (3) BA ACC

PR: ACG 2021. A study of the accountant's role in assisting management in the planning and controlling of business activities.

### ACG 3074 Managerial Accounting for Non-Business Majors (3) BA ACC

Does not count towards major or CPA requirements. Not available for credit for Business majors. The study of the uses of accounting data internally by managers in planning and controlling the affairs of organizations.

### ACG 3103 Intermediate Financial Accounting I (3) BA ACC

PR: ACG 3103. Continuation of ACG 3103. Topics covered include property, plant and equipment, intangibles, current liabilities, long-term debt, stockholders' equity, earnings per share computations, and investments.

### ACG 3113 Intermediate Financial Accounting II (3) BA ACC

PR: ACG 3103 with a grade of "C" or better (not C-). Continuation of ACG 3103. Topics covered include property, plant and equipment, intangibles, current liabilities, long-term debt, stockholders' equity, earnings per share computations, and investments.

### ACG 3341 Cost Accounting and Control I (3) BA ACC

PR: ACG 2071 or ACG 3103. Deals with cost accounting systems for different entities, cost behavior patterns, cost-volume-profit analysis, relevant information for decision making, and budgets and standard costs for planning and control.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Department</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>ACG 3401</td>
<td>Accounting Information Systems</td>
<td>3</td>
<td>BA ACC</td>
<td>Students who complete this course will not receive credit for ACG 4621. This course provides students with a basic understanding of well-controlled information systems in a variety of technological environments with added emphasis on the collection, processing, and reporting of accounting information.</td>
</tr>
<tr>
<td>ACG 4123</td>
<td>Intermediate Financial Accounting III</td>
<td>3</td>
<td>BA ACC</td>
<td>PR: ACG 3113 with a grade of &quot;C&quot; 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 accounting topics.</td>
</tr>
<tr>
<td>ACG 4351</td>
<td>Cost Accounting And Control II</td>
<td>3</td>
<td>BA ACC</td>
<td>PR: ACG 3301 with a grade of &quot;C&quot; or better (not C-). Application of the material covered in ACG 3341 with specific emphasis on cost allocations, performance measurements, analysis of current cost accounting systems and accounting in today’s environment (giving consideration to the influences of the international environment).</td>
</tr>
<tr>
<td>ACG 4621</td>
<td>Computer Control and Audit</td>
<td>3</td>
<td>BA ACC</td>
<td>PR: ISM 3113. Students who complete this course will not receive credit for ISM 4320 or ACG 3401. Study of information systems controls and auditing techniques emphasizing the effect both general and specific controls have on asset protection, data integrity, system effectiveness and efficiency in computerized environments.</td>
</tr>
<tr>
<td>ACG 4632</td>
<td>Auditing I</td>
<td>3</td>
<td>BA ACC</td>
<td>PR: ACG 3113 and ACG 3401. This course provides a sound conceptual foundation of basic auditing process from the perspective of the public accounting profession. Professional standards, ethics, legal responsibilities, and the utilization of technology are addressed.</td>
</tr>
<tr>
<td>ACG 4642</td>
<td>Auditing II</td>
<td>3</td>
<td>BA ACC</td>
<td>PR: ACG 4632 with a grade of &quot;C&quot; 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.</td>
</tr>
<tr>
<td>ACG 4901</td>
<td>Independent Study</td>
<td>(1-3)</td>
<td>BA ACC</td>
<td>PR: Consent of Director. S/U only. Specialized independent study determined by the students’ needs and interests.</td>
</tr>
<tr>
<td>ACG 4901</td>
<td>Independent Research I</td>
<td>(1-4)</td>
<td>BA ACC</td>
<td>PR: Consent of Director. Individual student study contract with instructor and director required. The research project will be mutually determined by the student and instructor.</td>
</tr>
<tr>
<td>ACG 4931</td>
<td>Selected Topics In Accounting</td>
<td>(1-4)</td>
<td>BA ACC</td>
<td>The course content will depend on student demand and instructor’s interest.</td>
</tr>
<tr>
<td>ACG 5201</td>
<td>Advanced Financial Accounting IV</td>
<td>3</td>
<td>BA ACC</td>
<td>PR: ACG 4123 Accounting for business combinations, preparation of consolidated financial statements, home office/branch relationships, foreign operations and transactions, partnerships.</td>
</tr>
<tr>
<td>ACG 5505</td>
<td>Governmental/Not-For-Profit Accounting</td>
<td>3</td>
<td>BA ACC</td>
<td>PR: ACG 4901, CR, ACG 4832. Emphasis on governmental and not-for-profit entities.</td>
</tr>
<tr>
<td>ACG 5675</td>
<td>Internal and Operational Auditing</td>
<td>3</td>
<td>BA ACC</td>
<td>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 select audit problems.</td>
</tr>
<tr>
<td>ACG 5935</td>
<td>Selected Topics In Accounting</td>
<td>(1-4)</td>
<td>BA ACC</td>
<td>PR: CI. To allow advanced undergraduate students and graduate students to research and study contemporary and emerging topics in the field. Rpt. To 6 hours.</td>
</tr>
<tr>
<td>ADE 4384</td>
<td>Working With the Adult Learner</td>
<td>(3)</td>
<td>ED EDV</td>
<td>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.</td>
</tr>
<tr>
<td>ADV 3000</td>
<td>Introduction to Advertising</td>
<td>(3)</td>
<td>AS COM</td>
<td>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.</td>
</tr>
<tr>
<td>ADV 3101</td>
<td>Advertising Copywriting</td>
<td>(3)</td>
<td>AS COM</td>
<td>PR: ADV 3000 and ECO 1000. Study of laboratory experience in preparation of advertising copy. Emphasis on the acquisition, analysis, and evaluation of primary and secondary data, and the principles of survey and experimental research.</td>
</tr>
<tr>
<td>ADV 3700</td>
<td>Retail Advertising Planning and Execution</td>
<td>(3)</td>
<td>AS COM</td>
<td>PR: ADV 3000 and ADV 3101. A study of retail advertising, including management decisions, processes, procedures, media planning, production techniques, and problems affecting the development of advertising to fulfill retail objectives.</td>
</tr>
<tr>
<td>ADV 4600</td>
<td>Advertising Management</td>
<td>(3)</td>
<td>AS COM</td>
<td>PR: ADV 3000, ADV 3101, ADV 3300. Application of analytical planning concepts to advertising planning and decision-making. Case study method used to explore advertising and promotional programs; media and creative strategies; consumer, retail, industrial, and public service applications.</td>
</tr>
<tr>
<td>ADV 4800</td>
<td>Advertising Campaigns</td>
<td>(3)</td>
<td>AS COM</td>
<td>PR: ADV 3001, ADV 3300, ADV 3501, ECO 1000, and MAR 3503. Advanced advertising course required for preparation of planning and production of complete general advertising campaigns, including research, production methods, budgeting, and media schedules.</td>
</tr>
<tr>
<td>ADV 4940</td>
<td>Advertising Practicum</td>
<td>(1)</td>
<td>AS COM</td>
<td>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.</td>
</tr>
<tr>
<td>AFA 4150</td>
<td>Africa and the United States</td>
<td>6A SS HP AF</td>
<td>(3)</td>
<td>AS INT</td>
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<tr>
<td>AFA 4200</td>
<td>Slavery in the Americas and the Caribbean -MW</td>
<td>3</td>
<td>AS AFA</td>
<td>This course examines the institution of enslavement in North, South, and Central America, and the Caribbean. It takes an interdisciplinary approach in exploring the social, political, and economic underpinnings of slavery.</td>
</tr>
<tr>
<td>AFA 4319</td>
<td>Black English</td>
<td>3</td>
<td>AS AFA</td>
<td>PR: Junior or Senior standing. This course focuses on linguistic patterns among African Americans in the U.S., South and Central America, and the Caribbean. It examines language in relation to issues of domination, social stratification, economics and political empowerment.</td>
</tr>
<tr>
<td>AFA 4333</td>
<td>Social Institutions and the African-American Community</td>
<td>(3)</td>
<td>AS AFA</td>
<td>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.</td>
</tr>
<tr>
<td>AFA 4335</td>
<td>Black Women in America</td>
<td>6A MW</td>
<td>(3)</td>
<td>AS AFA</td>
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<tr>
<td>AFA 4350</td>
<td>African American Community Research</td>
<td>-MW</td>
<td>(3)</td>
<td>AS AFA</td>
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<tr>
<td>AFA 4900</td>
<td>Directed Readings</td>
<td>(1-3)</td>
<td>AS AFA</td>
<td>PR: CI. Independent readings in a particular area of African and Afro-American Studies, selected by student and instructor.</td>
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</table>
| AFA 4931    | Selected Topics | (3) | AS AFA | Topics offered are selected to reflect student needs and faculty interests. In depth study in such areas as the Black Student and...
AFR 4211 National Security Affairs & Preparation for Active Duty Part 1 (3) US AFR
CR: AFR 2000, AFR 2001. A continuation of the study of the Armed Forces in contemporary American society. Concentration is on the requisites for maintaining adequate national security forces and social cohesion in the national defense structure; the impact of technological and international developments on strategic preparedness; the variables involved in the formulation and implementation of national security policy; and relationships to civilian society and political systems.

AFS 2250 Culture and Society in Africa -6A AF (3) AFA
Topics include: African religion, value systems, art and the aesthetics, family and life-cycle, impact of Islam and Christianity and conflict of cultures.

AFS 3153 African Literature Survey -6A LW (3) AFA
PR: Junior or Senior standing. Explore the socio-historical, philosophical and political dynamics of African cultures through the study of African oral literature and the reading of African literary texts of various genres.

AIS 5758 Early Civilizations - stamp (3) RTH
The study of the development of political and social organization in the ancient Near East and Egypt and the origins of civilization. Emphasis on the significance of religious ideas and political organization in the evolution of the human species.

AMH 2010 American History I -HP (3) HTY
A history of the United States with attention given to relevant developments in the Western Hemisphere from European origins to 1877.

AMH 2020 American History II -HP (3) HTY
A history of the United States with attention given to relevant developments in the Western Hemisphere from 1877 to present.

AMH 3110 American Colonial History to 1750 (4) HTY
A study of the evolution of American society from the Age of Reconnaissance to 1750. Emphasis is given to the social, political, and economic changes that have shaped the development of the Western world, with a focus on the Americans. This course takes an interdisciplinary approach. The course is not restricted to majors and is not repeatable for credit.

AMH 3110 American Colonial History to 1750 (4) HTY
A study of the evolution of American society from the Age of Reconnaissance to 1750. Emphasis is given to the social, political, and economic changes that have shaped the development of the Western world, with a focus on the Americans. This course takes an interdisciplinary approach. The course is not restricted to majors and is not repeatable for credit.

AMH 3120 American History to 1850 (4) HTY
A study of the evolution of American society from the Age of Reconnaissance to 1750. Emphasis is given to the social, political, and economic changes that have shaped the development of the Western world, with a focus on the Americans. This course takes an interdisciplinary approach. The course is not restricted to majors and is not repeatable for credit.

AMH 3130 The American Revolutionary Era (4) HTY
Emphasis on the causes of the American revolution, the nature of Constitution-making, and the establishment of the federal system. Also examines the significance of loyalty, violence, and slavery in American society from 1750-1788.

AMH 3140 The Age of Jefferson (4) HTY
A comprehensive study of American society and political processes from 1789-1828. Focuses on major trends, party systems, expansionism, Indian policy, labor, and ethnological conflicts.

AMH 3160 The Age of Jackson (4) HTY
The United States from 1828-1860, with emphasis on social and political conflict. Consideration of evangelicalism, reform, labor movements, urbanization, and political activity in the antebellum era.

AMH 3170 The Civil War and Reconstruction (4) HTY
An examination of political, social, and economic climate of the 1850’s that led to the American Civil War. The course does focus upon the war itself in its military, diplomatic, and political consequences through the end of the Reconstruction (1877).

AMH 3201 The United States, 1877-1914 (4) 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. Aims to develop an understanding of the complex interactions of domestic developments, such as the consumer culture, protest movements, and abuses of political power.

AMH 3201 The United States, 1877-1914 (4) HTY
A study of America’s role in the Cold War, in Vietnam, and in the post-Cold War era. Also examines domestic and international developments, such as consumer culture, protest movements, and abuses of political power.

AMH 3403 The South since 1865 (4) HTY
Southern history since the surrender at Appomattox. Topics covered include Reconstruction, the Populist revolt, race relations,
AML 421 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; changes occurring in Florida between 1565 and 1821.

AML 3423 Modern Florida (4) AS HTY
An historical survey of Florida from the territorial period to the present. An examination of the changing nature of work, its effects on workers (including minorities and women), and their responses as expressed in strikes, unions, and political action.

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

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

AML 3530 Immigration History (4) AS HTY
A study of the composition and character of the “American” people with an 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.

AML 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.

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

AML 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, war, and reform movements will be examined.

AML 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.

AML 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, slavery, and the Civil War.

AML 3572 African American History since 1865 -HP (3) AS AFA
A survey of African American history, with an emphasis on North America, from 1865 to the present. Topics include reconstruction, World War I, World War II, and the Civil Rights Movement.

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 Whittman, Dickinson, Twain, James, Howells, Crane, Dreiser, Wharton, Robinson, Dunbar, and Johnson.

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

AML 3453 Historical Perspectives in Early American Literature - HP (3) AS ENG
Examines American literature from the Colonial Period to the Civil War as a manifestation of geographical, political, social, and intellectual forces. Will not be counted toward the English major.

AML 3604 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 through the Civil War and the development of regionalism. Includes such novelists as Cooper, Hawthorne, Melville, James, Twain, Crane, and Dreiser, among others.

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

AMS 2201 American Literature of the Renaissance (3) AS ENG
A study of the major writers of the “Southern Renaissance,” including writers such as Faulkner, Wolfe, Caldwell, Hellman, McCullers, O’Connor, Warren, Styron, Tate, Davidson, and Dickey.

AMS 4330 Selected American Authors (3) AS ENG
The study of two or three related major authors in American literature. The course may include such writers as Melville and Hawthorne, Hemingway and Faulkner, James and Twain, Pound and Eliot, Stevens and Lowell, etc. Specific topics will vary. May be taken twice with credit with different topics.

AMS 4624 Black Women Writers -6A LW (3) AS AFA
Black women writers in the literature of everyday life of women of Africa and the African Diaspora. It examines the social, historical, artistic, political, economic, and spiritual lives of African women in different cultural contexts.

AMS 3030 American Culture 1880-1915 -6A HP (4) AS AMS
An overview of American Studies, the interdisciplinary study of American culture. Analysis of the arts and literature, including music; social issues; popular culture; material culture; cultural diversity; and social change. These approaches will be applied to a specific cultural era.

AMS 3221 Twentieth-century American Literature -HP (3) AS AMS
An examination of cultural patterns in America as they developed between 1900 and 1930 with an emphasis on the texture of everyday life.

AMS 3227 Twentieth-century American Culture -HP (3) AS AMS
An examination of cultural patterns in America from 1930 to the present with emphasis on the texture of everyday life.

AMS 3260 American Culture, 1830-1860 -6A HP (4) AS AMS
The study of major aspects of American life between the 1830s 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 regional, ethnic and cultural materials dealing with selected American regions. Topic varies.

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

AMS 3250 American Culture, 1830-1860 -6A HP (4) AS AMS
An examination of selected regional, ethnic and cultural materials dealing with selected American regions. Topic varies.

AMS 3260 America During the 20s and 30s (4) AS AMS
Selected interdisciplinary materials are used to examine the relationships among regionalism, nationalism and internationalism during the twenties and thirties. Emphasis is placed on the American cultural nationalism attained by the United States during this period.

AMS 3280 American Culture, 1830-1860 -6A HP (4) AS AMS
The study of American culture in the years leading up to the Civil War. Topics include religion and social reform, race relations, and the impact of industrialization.

AMS 3370 Southern Women: Myth and Reality -6A HP (3) AS AMS
This course will identify the myths surrounding Southern Women, their roles in the family, American success myth, youth in America, and the quality of life, sports and American society, popular music, American communities, vigilante tradition, jazz music, and others.

AMS 3601 Material Culture and American Society -SS HP (3) AS AMS
By means of slides, lectures and student projects, examines connections between artifacts and American cultural attitudes from the 18th century to the 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 society and the African-American community. This course is designed to help students develop an awareness of the history of racism in America, 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
Courses include Culture and Identity in America, America Through Foreign Eyes, and The Female Hero in American Culture.
The major concepts that form the anthropological view of humanity are viewed in historical perspective. Basic ideas of the western philosophical tradition are analyzed from the 18th century to the 20th century when they became incorporated into the new discipline of anthropology. 20th century anthropological developments on these themes are considered. DA 

ANT 4142 Old World Archaeology (3) AS ANT 
PR: ANT 3101 or DPR. The archaeology of Europe, Asia and Africa, from the earliest humans through the emergence of state-level societies in many parts of the Old World. The course will focus on the comparative study 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 course will focus on ancient material culture while emphasizing social and economic questions such as the emergence of modern humans, the adoption of agriculture, the development of complex societies, and the rise of civilization. 

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

ANT 4153 North American Archaeology (3) AS ANT 
PR: ANT 3101 or DPR. An examination of the evidence regarding the human settlement of North America from its beginnings through the development of aboriginal culture to the period of European conquest. Emphasis on 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 (Fla.-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 archaeology of Europe, Asia and Africa. Emphasis on the chronological sequence from its beginnings through Prehistoric development is described and analyzed. Courses such as the Maya, Aztec, Mixtec, Zapotec, Olmec, and Toltec are included, with emphasis on the environmental setting and the relationship between cultural ecology and the growth of civilization. 

ANT 4165 South American Archaeology (3) AS ANT 
PR: ANT 3101 or DPR. The archaeology of South America, from the Incas, Chavin, Mochica, Wari, Chimú are included. Emphasis on the environmental setting and the relationship between cultural ecology and the growth of civilization. 

ANT 4172 Historical Archaeology -6A (3) AS ANT 
PR: ANT 3101 or DPR. A survey and analysis of archaeology focused on the historic period. Laboratory research with data recovered from historic sites in addition to classwork. 

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

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

ANT 4183C Archaeological Science (3) AS ANT 
PR: ANT 3101 or DPR. A course of study and analysis of the application of scientific methods of analysis to archaeological materials including bone, stone, pottery, and metal. Methods include absolute dating, remote sensing, optical and SEM microscopy, elemental and isotopic analysis. Laboratory sections provide hands-on experience with a variety of archaeological materials and analytical methods.
ANT 4231 Folklore -6A (3) AS ANT  
PR: ANT 2410 or DPR. Focuses on cross-cultural methods and techniques regarding the collection, classification, and analysis of such materials as myths, jokes, games, and items of material culture. African (or African-derived), Oceanic and Native American literature is surveyed. Emphasis on the anthropological study of culture, but with reference to allied disciplines. Students will become familiar with oral history through intensive analysis of selected case studies as well as guided field projects.

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

ANT 4242 Oral History (3) AS ANT  
PR: ANT 2410 or DPR. A survey of the history, methods, and current applications of oral history research, primarily in the anthropological study of culture, but with reference to allied disciplines. Students will become familiar with oral history through intensive analysis of selected case studies as well as guided field projects.

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

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

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

ANT 4323 Mexico and Central America (3) AS ANT  
PR: ANT 2410 or DPR. Focuses on the history, contemporary values and interpersonal relationships, and patterns of rural and urban life in Mesoamerica. Guatemala and Mexico are emphasized.

ANT 4340 The Caribbean -MW (3) AS ANT  
PR: ANT 2410 or DPR. Main themes include: the de-population of the aboriginal population and the resettlement of the area via slavery, indenture, and migration; contemporary ethnic heterogeneity; economic problems of Third World microstates; development of a modern social and political consciousness. Religious diversity, music, the graphic arts, and the literature of the contemporary Caribbean will also be surveyed.

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

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

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

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

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

ANT 4495 Methods in Cultural Research (3) AS ANT  
PR: DPR. The stages in the development and execution of ethnological research are discussed and practiced. Literature searches, hypothesis formulation, 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, 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. Biocultural 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 worldviews 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 cultural development of the Third World and the ethics of applied research and intervention.

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

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

ANT 4901 Directed Reading (1-4) AS ANT  

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

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

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

ANT 4935 Rethinking Anthropology -6A (3) AS ANT  
PR: ANT 2410 or DPR. The stages in the development and execution of ethnological research are discussed and practiced. Literature searches, hypothesis formulation, 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 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 in anthropology 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.
ARC 5789 Modern Architecture History (3) AR ARC
PR: CC. Introduction to the concepts and theories of architectural technology, including structures, materials and methods of construction, and environmental controls. Overview of building systems and components and their application into architectural design projects.

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

ARC 5588 Structures II (3) AR ARC

ARC 5589 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, technological and economic context. Varieties of methodological approaches to the analysis of historical architecture. The focus will be on the built environment of Europe and the Mediterranean basin.

ARC 5732 Architectural History II (3) AR ARC
Overview of the built environment from the Renaissance to the present. Buildings and cities in their geographical, topographical, political, aesthetic, social, technological, and economic context. Study of various methodological approaches to the analysis of historic architecture, and development of student’s own approach. Focus is on the role of environment in the development of architecture throughout the 20th century. The course will investigate the writings and works of the proponents of the modern style of architecture and the “New Architecture” as defined by those who broke tradition and expressed the new era using modern construction materials and techniques.

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

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

ARC 5931 Special Studies in Architecture (1-5) AR ARC
PR: CC. Variable titles offered on topics of special interest.
ARH 3354 Art Teaching Strategies I (3) VP ART
PR: ARE 3044. A combination of theory, philosophy and practice in both public and private learning centers to provide the student with a variety of teaching concepts and media exploration in art education and to further enable the student to understand stages of development in art, three to eight years.

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

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

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

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

ARE 4940 Internship: Art Education (1-12) VP ART
CR: ARE 4037. 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.

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

ARH 2060 History of Visual Arts II - FA (3) VP ART
PR: DPR. A survey of World Art since 1300. Students are introduced to problems of analyzing and interpreting the art of various cultures without making the Western perspective a privileged one. Open to non-majors.

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

ARH 3475 Contemporary Issues in Art - HP FA MW (4) VP ART
PR: DPR. Focuses upon the productions, themes and processes of artists working in the present time. This course will investigate the relationship of materials and media used by contemporary artists to the subject and content of artists' productions/products as well as conceptual processes.

ARH 4115 Ancient Egyptian and Near Eastern Art (4) VP ART
PR: ARH 2050 recommended but not required. A study of the art and cultures of ancient Egypt and the Near East, from the prehistoric period through the conquests of Alexander the Great.

ARH 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 4171 Roman Art (4) VP ART
PR: ARH 2050 or EUH 2011 recommended but not required. A comprehensive study of ancient Roman sculpture, painting, architecture, and other artistic media from the founding of Rome through the reign of Constantine.

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

ARH 4301 Renaissance Art (4) VP ART
PR: DPR. A comprehensive study of Renaissance and Mannerist painting, sculpture and architecture in Italy and Northern Europe.
ART 4892 Paris Art History (4) VP ART
PR: Minimum 8 hours of art history at the undergraduate level or equivalent. This course will explore issues central to the history and criticism of art through the rich visual culture of Paris. Themes will include art and national identity, orientalism, the avant-garde, and the role of the museum in the evolution of modern art.

ART 4930 Art History: Selected Topics (2-4) VP ART
Lecture/discussion course designed to offer areas of expertise of faculty and their specific interests of resident faculty.

ART 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 changing nature of Art History from Vassar to the present.

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

ART 5795 Methods of Art History (4) 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 are eligible after completing one semester in the program. S/U only. Registration by contract only. By working in Bay Area museums or galleries, students will become familiar with various museological operations in order to see how the work at hand in particular museums, but possible areas of work include registration, installation, conversation, writing of grants, or museum education.

ART 2201C Fabrications I (FA) (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 (FA) (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 pre-requisite for majors, but not for non-majors. Fabrications II will focus on the significance of meaning and how it is constructed visually by researching 3 phases: I - the personal in images, We - images of cultural ideas, and They - images produced through collaboration.

ART 2222 Beginning Electronic Media (3) VP ART
An introductory exploration of the issues and practices involved in the creation of experimental computer art. The course focuses on an interdisciplinary approach to electronic media while developing personal creative growth.

ART 3310C Intermediate Drawing (3) VP ART
An extension of the skills and concepts introduced in Beginning Drawing with an emphasis on individual experimentation and the development of advanced critical and technical skills in the discipline. The course is repeatable up to 9 hours.

ART 3401C Intermediate Printmaking (3) VP ART
This course concentrates on developing intermediate skills in printmaking with particular emphasis on conceptual topics. The course is intended for majors. It is repeatable for credit up to 9 hours.

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

ART 3530C Intermediate Painting (3) VP ART
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. The course is repeatable for up to 9 hours.

ART 3704C Intermediate Sculpture (3) VP ART
This course expands upon the principles and processes introduced in Beginning Sculpture, developing a higher level of technical competence and critical sophistication. Intermediate Sculpture is prerequisite to Multiples, Molds and Bronzecasting and to Site, Installation, Performance. Repeatable up to 9 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 site-specific sculpture, installation and performance. 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 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. 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 3716C Intermediate Ceramics (3) VP ART
Intermediate problems in ceramics and emphasis on the exploration of methods and media and the development of individual concepts.

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 3931C Advanced Ceramics (3) VP ART
PR: ART 3761C. Continued problems in ceramics. Repeatable.

ART 4223 Advanced Electronic Media (3) VP ART
PR: ART 2222 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 4243C 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.

ART 4245C 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.

ART 4320C Advanced Drawing (3) VP ART

ART 4402C Advanced Printmaking (3) VP ART
PR: ART 2400C. This course is designed as an advanced printmaking studio and emphasizes content and meaning in visual imagery. The student is encouraged to work in a specific printmaking medium (intaglio, relief, lithography or screen printing) and develop a cohesive series of images. Open. University of arts. Repeatable.

ART 4520C Advanced Painting (3) VP ART
PR: ART 2510C. Continued projects in painting. Repeatable.

ART 4702C Advanced Sculpture (3) VP ART
ART 4703 Sculpture III (4) VP ART
PR: ART 2702C or ART 2111C. Study of current 3-D issues in art with advanced self directed project to explore the development of a personal vocabulary in 3-D media.

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

ART 4808 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: Cr. Registration by contract only. A course of reading and study in an area of special concerned 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: Cr. 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 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 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.

ART 4955 Senior Projects (2-4) VP ART
PR: Senior year student. Completion of all art preparation course work, CR: Studio Workshops and one Theme Studio. Restricted to majors. Required of all B.A. Studio Arts majors. Independent study with professor. Student designed project to be completed before end of senior year. Art projects may include designs for community and public arts programs, installations, curatorial work, performance, a series of work developed within a particular studio discipline, etc.

ART 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, professionalism, and self-promotional skills.

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

ART 4974 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.

ART 5125C Ceramics (4) VP ART
PR: ART 2750C, DPR. Advanced problems in the various ceramic techniques, including throwing and glaze calculation. Repeatable.

ART 5340C Drawing (4) VP ART
PR: ART 4320C, Cr. DPR. Advanced problems in various drawing techniques. Emphasis on individual creative expression. Repeatable.

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

ART 5472C Intaglio (4) VP ART
PR: ART 4402C, Cr. DPR. Investigations into more complex intaglio processes including photoengraving and color printing procedures. Emphasis on personal conceptual development in graphic media. Repeatable.

ART 5536C Painting (4) VP ART
PR: ART 3530C, DPR. Advanced problems in the various painting techniques. Emphasis on individual creative expression. Repeatable.

ART 5730C Sculpture (4) VP ART

ART 5910 Research (1-4) VP ART

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

ASN 3017 Japan Today - SS (3) AS INT
Area study courses are multi-disciplinary in nature and deal with one or more countries of a region. Each course combines some measure of political, economic, historical, religious, geographic, anthropological, and sociological analysis in dealing with salient features and current problems.

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

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

ASN 3105 The Pacific Century - SS HP AF (3) AS INT
Explores the themes and trends which have affected the entire Asian region in the past 150 years. (Open University-televised course.)

AST 2005 Astronomy of the Solar System - NS (4) AS AST
Introduction to the Astronomy of the Solar System. No Physics background assumed. Topics covered include properties of light, stellar coordinates, timekeeping, eclipses, formation and dynamics of the solar system, properties of the sun and planets, space exploration of planets and the moon, life on other worlds. This course is complementary to but independent of AST 2006. Either may be taken before the other or taken by itself.

AST 2006 Stellar Astronomy and Cosmology - NS (4) AS AST
An introduction to Astrophysics and the structure of the universe. No Physics background assumed. Topics covered include properties of light, stellar coordinates, measurement of the physical properties of stars, formation, structure and evolution of stars, normal and peculiar galaxies, cosmology. 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, comets and meteors, seasons, weather. Current events in the space program. Planetarium and open sky demonstrations.

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

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

AST 3652 Navigation (3) AS AST
PR: Some knowledge of geometry, algebra, and trigonometry. Timekeeping, use of sextant, constellations, celestial navigation with minimum equipment. Restricted to majors. Registration by contract only. Repeatable.

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 3550 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.
BCH 4034 Advanced Biochemistry (3) AS CHM

PR: BSC 2010 and BSC 2010L. An analysis of biological systems including selected biological principles, usually taught by television.

BCH 5185C Marine Botany (4) AS BIO


BME 5742 Pharmacological Engineering (2) EN ECH

PR: Senior or Graduate standing. A one-semester survey course in biomedical engineering for biology majors. Lectures and demonstrations of selected biological principles, usually taught by television.

BME 5748 Selected Topics in Biomedical Engineering (1-3) EN ECH

PR: Senior or Graduate standing. A one-semester survey course in biomedical engineering for biology majors. Lectures and demonstrations of selected biological principles, usually taught by television.

BSC 1005 Principles Of Human Pharmacology -NS (3) ME MSG

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

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 scientific principles of ecology relevant to problems and topics of the student’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 human nutritional problems; to learn how various cultures achieve adequate nutrition and how environmental changes impact both personal and global nutrition.

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 2093 Human Anatomy and Physiology I (3) AS BIO

PR: BSC 2010, BSC 2010L and BSC 2011, BSC 2011L. This course is the second half of a two-semester series introducing the structure and function of the human body’s major organ systems. Cell biology and cardiac physiology, nervous, endocrine, skeletal, and muscular systems will be covered. May be taken by Departmental majors for free elective credit only.

BSC 2094 Anatomy & Physiology II (3) AS BIO

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

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

PR: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L. A survey of the marine environment, the types of organisms found inhabiting
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Department</th>
<th>PR/CR/CI Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSC 4057</td>
<td>Environmental Issues -MW (3) AS BIO</td>
<td>Biology</td>
<td>Not for major's credit. Study of biological, economic, ethical, legal, political and social issues relating to current environmental problems.</td>
</tr>
<tr>
<td>BSC 4402L</td>
<td>Biological Research Methods (3) AS BIO</td>
<td>Biology</td>
<td>PR: BSC 4931 or BSC 4932. Enrolment is limited to Biology Department Honors students. S/U only. A course to prepare Biology Honors students to work on their Honors theses.</td>
</tr>
<tr>
<td>BSC 4905</td>
<td>Independent Study (1-3) AS BIO</td>
<td>Biology</td>
<td>PR: CI. S/U only. May be taken by majors for free elective credit. Specialized independent study determined by the student's needs and interests. Written contract required by the Department of Biology specifies the regulations governing independent study.</td>
</tr>
<tr>
<td>BSC 4910</td>
<td>Undergraduate Research (1-4) AS BIO</td>
<td>Biology</td>
<td>PR: CI. S/U only. Individual investigation with faculty supervision. Written contract by Department is necessary prior to registration.</td>
</tr>
<tr>
<td>BSC 4931</td>
<td>Honors Seminar I (2) AS BIO</td>
<td>Education</td>
<td>A comprehensive study of commercial law property, sales of personal property, securing of credit granted, and environments.</td>
</tr>
<tr>
<td>BSC 4932</td>
<td>Honors Seminar II (3) AS BIO</td>
<td>Biology</td>
<td>PR: CI. S/U only. A reading and discussion course involving areas of general interest in biology.</td>
</tr>
<tr>
<td>BSC 4933</td>
<td>Selected Topics In Biology (1-3) AS BIO</td>
<td>Biology</td>
<td>PR: CI. Provides an introduction to the structure and operation of law enforcement, prosecution, the courts, and corrections. Includes brief review of major reported crimes.</td>
</tr>
<tr>
<td>BSC 4970</td>
<td>Biology Honors Thesis (1-3) AS BIO</td>
<td>Biology</td>
<td>PR: BSC 4402L and either BSC 4931 or BSC 4932. Enrolment is limited to Biology Department Honors students. S/U only. A thesis based independent research carried out by the student.</td>
</tr>
<tr>
<td>BSC 5931</td>
<td>Selected Topics In Biology (1-3) AS BIO</td>
<td>Biology</td>
<td>PR: CI. Provides an introduction to the structure and operation of law enforcement, prosecution, the courts, and corrections. Includes brief review of major reported crimes.</td>
</tr>
<tr>
<td>BTE 4401</td>
<td>Special Teaching Methods: Business Education (4) ED EDV</td>
<td>Education</td>
<td>PR: Successful completion of BE competencies. Methods, techniques, and materials for skill development.</td>
</tr>
<tr>
<td>BTE 4940</td>
<td>Directed Study: Business Education (1-3) ED EDV</td>
<td>Education</td>
<td>PR: Senior standing. To extend competency in teaching field.</td>
</tr>
<tr>
<td>BTE 4936</td>
<td>Senior Seminar in Business and Office Education (2) ED EDV</td>
<td>Education</td>
<td>PR: Senior standing; CR: BTE 4940. Synthesis of teacher candidate's courses in complete college program.</td>
</tr>
<tr>
<td>BTE 4940</td>
<td>Internship: Business Education (1-12) ED EDV</td>
<td>Education</td>
<td>CR: BTE 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.</td>
</tr>
<tr>
<td>BTE 5171</td>
<td>Field-Based Seminar in Business Education (3) ED EDV</td>
<td>Education</td>
<td>S/U only. Supervised field experience and orientation to broad field business education. Specifically designed to be preparatory for the internship.</td>
</tr>
<tr>
<td>BUL 3320</td>
<td>Law And Business I (3) BA GBA</td>
<td>Business</td>
<td>This course covers the nature of legal and societal institutions and environments, and major aspects of public, private, UCC and related business law.</td>
</tr>
<tr>
<td>BUL 3321</td>
<td>Law And Business II (3) BA GBA</td>
<td>Business</td>
<td>PR: BUL 3320. Legal problems in marketing of goods, nature of property, sales of personal property, securing of credit granted, and nature and use of negotiable instruments.</td>
</tr>
<tr>
<td>BUL 5332</td>
<td>Law and the Accountant (3) BA GBA</td>
<td>Business</td>
<td>PR: BUL 3320 or CI. A comprehensive study of commercial law and its effects on the practice of accounting.</td>
</tr>
<tr>
<td>CAP 5400</td>
<td>Digital Image Processing (3) EN ESB</td>
<td>Computer</td>
<td>PR: EEL 4851C or GS. Image formation, sources of image degradation, image enhancement techniques, edge detection operators and low-level processing algorithms for vision, image data compression.</td>
</tr>
<tr>
<td>CAP 5625</td>
<td>Introduction to Artificial Intelligence (3) EN ESB</td>
<td>Computer</td>
<td>PR: EEL 4851C or GS. Basic concepts, tools, and techniques used to produce and study intelligent behavior. Organizing knowledge, exploiting constraints, searching spaces, making decisions, and problem solving strategies.</td>
</tr>
<tr>
<td>CAP 5682</td>
<td>Expert And Intelligent Systems (3) EN ESB</td>
<td>Computer</td>
<td>PR: EEL 4851C or GS. Basic concepts, techniques and tools for the design and implementation of expert and intelligent systems. Knowledge representation, inference methods, knowledge acquisition methods, and some advanced concepts. Tools to facilitate construction of expert and intelligent systems.</td>
</tr>
<tr>
<td>CBH 4044</td>
<td>Comparative Psychology (3) AS PSH</td>
<td>Psychology</td>
<td>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.</td>
</tr>
<tr>
<td>CCE 4034</td>
<td>Construction Management (3) EN EGX</td>
<td>Education</td>
<td>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.</td>
</tr>
<tr>
<td>CCE 5035</td>
<td>Construction Management &amp; Planning (3) EN EGX</td>
<td>Education</td>
<td>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.</td>
</tr>
<tr>
<td>CCJ 3003</td>
<td>Crime and Justice in America -SS (4) AS CJP</td>
<td>Criminal</td>
<td>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 criminals and victims of crime.</td>
</tr>
<tr>
<td>CCJ 3024</td>
<td>Survey of the Criminal Justice System -SS (3) AS CJP</td>
<td>Criminal</td>
<td>An introduction to the structure and operation of law enforcement, prosecution, the courts, and corrections. Includes brief review of major reported crimes.</td>
</tr>
<tr>
<td>CCJ 3610</td>
<td>Theories of Criminal Behavior (3) AS CJP</td>
<td>Criminal</td>
<td>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.</td>
</tr>
<tr>
<td>CCJ 3621</td>
<td>Patterns of Criminal Behavior (3) AS CJP</td>
<td>Criminal</td>
<td>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 offenses, syndicated (organized) crimes, consensual crimes, female crime, political crime, and environmental crime.</td>
</tr>
<tr>
<td>CCJ 3701</td>
<td>Research Methods in Criminal Justice I (3) AS CJP</td>
<td>Criminal</td>
<td>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.</td>
</tr>
<tr>
<td>CCJ 4450</td>
<td>Criminal Justice Administration (3) AS CJP</td>
<td>Criminal</td>
<td>PR: Junior standing, CCJ 4114 or CCJ 4100 or CI. This course is designed to provide an in-depth examination of both the practical and theoretical aspects of the administration of criminal justice agencies. The major focus will be on law enforcement and correctional agencies.</td>
</tr>
<tr>
<td>CCJ 4604</td>
<td>Abnormal Behavior and Criminality (3) AS CJP</td>
<td>Criminal</td>
<td>PR: Junior standing, CCJ 3610 or CI. A systematic introduction to the relationship between mental illness and criminality, with focus on psychiatric labeling of deviant behavior and its implications for the handling of the criminal offender.</td>
</tr>
<tr>
<td>CCJ 4700</td>
<td>Statistical Research Methods in Criminal Justice II (3) AS CJP</td>
<td>Criminal</td>
<td>PR: Junior standing, CCJ 3024 or CCJ 3610 or CI. Beginning with the scientific method and tools commonly used, an analysis of 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.</td>
</tr>
</tbody>
</table>
| CCJ 4950    | Directed Readings I (1-3) AS CJP                      | Criminal   | PR: Junior standing, CCJ 3024, CCJ 3610, CCJ 3621, CI. S/U only. (a) Students wishing to enroll must make arrangements with a faculty member during the semester prior to actually taking the course. (b) A minimum of four CCJ courses must have been completed satisfactorily prior to enrollment. (c) First consideration will be given to Criminology majors. (d) Individual faculty members may add additional requirements at their discretion. No more than six hours of CCJ 4950, CCJ 4951 or any combination of the two will be accepted toward the minimum number of hours.
required for the major. This course is specifically designed to enable advanced students the opportunity to do inde-
CHM 4905 Directed Study (1-5) AS WLE
Departmental approval required. S/U only. Permits study options in Modern Chinese not available in the regularly scheduled curriculum at departmental discretion.

CHM 2021 Chemistry For Today -NS (4) AS CHM
PR: High school chemistry and mathematics including algebra are recommended. No credit for science majors. An introduction to the principles and applications of modern chemistry including the properties of matter, structural view of matter and reactions, quantitative relations in chemical reactions, technological aspects and societal impact.

CHM 2030 Introduction to General, Organic and Biochemistry I (4) AS CHM
No credit for science majors. Fundamental concepts of general, organic, and biological chemistry.

CHM 2045 General Chemistry I -NS (3) AS CHM
PR: One year of high school chemistry and two years of high school mathematics including algebra; or, completion of CHM 2040 with grade of C or better. Principles and applications of chemistry including properties of substances and reactions, thermochemistry, atomic-molecular structure and bonding, periodic properties of elements and compounds, and gases. Lec.-lab.

CHM 2045L General Chemistry I Laboratory (1) AS CHM
CP: CHM 2045. Laboratory portion of General Chemistry I. Introduction to laboratory techniques; study of properties of elements and compounds; synthesis and analysis of natural and commercial materials.

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

CHM 2046L General Chemistry II Laboratory (1) AS CHM
PR: CHM 2045L. Laboratory portion of General Chemistry II.

CHM 2200 Organic Chemistry (4) AS CHM
PR: CHM 2046 or equivalent. Fundamental organic chemistry principles. Structure, nomenclature, properties, preparation, reactions of hydrocarbons, alkyl halides, alcohol, phenols, ethers, sulfur compounds, and other compounds. One-semester course.

CHM 2210 Organic Chemistry I (3) AS CHM
PR: CHM 2046, CHM 2046L. Fundamental principles of organic chemistry. Lecture.

CHM 2210L Organic Chemistry Laboratory I (2) AS CHM
CP: CHM 2200 or CHM 2210. Laboratory portion of Organic Chemistry I. Introduction of organic laboratory principles and techniques.

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

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

CHM 2932 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 2054L. Introduction to thermodynamics. Properties of solutions with emphasis on biological applications.

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

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

CHM 3610 Intermediate Inorganic Chemistry (3) AS CHM
PR: CHM 2046, CHM 2046L. Fundamental principles of inorganic chemistry including atomic structure, bonding, transition metal chemistry, structural consequences and spectroscopic methods.

CHM 3610L Intermediate Inorganic Chemistry Laboratory (1) AS CHM
PR: Two semesters of general chemistry lecture 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.
### CJE 4114 Clinical Chemistry Practice (2-12) AS CHM
**PR:** CI. S/U only. Laboratory practice in clinical chemistry laboratories in the Tampa Bay area.

### CIS 4935 Senior Project in Information Technology (3) US EIT
**PR:** Senior standing in Information Technology. Projects are supervised by a faculty member, or an approved industrial mentor. Projects range from design to implementation of such systems.

### CIS 4900 Independent Study In Computer Science (1-5) EN ESB
**PR:** EEL 4855 or CI. Specialized independent study determined by the needs and interests of the student.

### CIS 4500 Database Systems for Information Technology (3) US EIT
**CR:** EEL 4855 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 4500 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 seminars to senior IT students.

### CIS 4250 Ethical Issues And Professional Conduct -6A MW (3) EN ESB
**PR:** Junior standing. Examines some of the principal methods and techniques currently used to reduce or prevent losses due to theft or fraud. 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 drugs-crime connection, prevention, early intervention and treatment efforts, and drug use policy.

### CJJ 4564 Juvenile Correctional Alternatives (3) AS CJP
**PR:** Junior standing. 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, demonstration, probation, and community-based non-secure facilities will be discussed.

### CLE 3110 Substance Violent Crime (3) AS CJP
**PR:** Junior standing. Examines the current status of violent crime, displaced crime, and victimization. Some attention is given to the political background of the works. Special emphasis is placed on the Iliad, the dramatists Aeschylus, Sophocles, Euripides and Aristophanes. Some attention is given to the social and political background of the works. All readings are in English.

### CLT 3040 Scientific and Medical Terminology  (3) AS WLE
**PR:** Junior standing. Covers the major components of criminal investigation, with special attention to the scientific aspects of criminal investigation and the management of major cases.

### CLT 3103 Roman Civilization (2) AS WLE
**PR:** Junior standing. Examines the communicative origins and implications of gender roles. For non-majors only. Identification of communication situations specific to business and the professions. Analysis of variables and abilities in computer science involving either computer hardware or software aspects of a well defined proposal.

### CLT 4300 Federal Information Technology (1-4) EN ESB
**PR:** EEL 4851 or CDA 3201 or CI. 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 4311 Jr. Information Technology  (3) AS WLE
**PR:** Junior standing. Examines the communicative origins and implications of gender roles. 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: majors, 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
Student 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 registering for night section of 3122.

COM 3122L Interview Communication Lab (0) 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, etc. and culture in which the story occurs.

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 dissemination, and health behaviors. 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. 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 4110 Writing Lives -6A (3) AS SPE
PR: Junior/Senior standing or CI. Emphasizes writing stories about our lives and the lives of others as a way to understand, cope with and communicate social experiences.

COM 4942 Communication Intern Seminar (3) AS SPE
PR: Communication major, minimum GPA 3.0, 75 hours completed, 15 hours of core requirements and 9 elective hours completed, and CI. Seminar provides students with an opportunity to put into practice concepts and skills acquired in their study of communication. Weekly seminar sessions are held. 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 2000L Computer Science Laboratory (1) EN ESB

COP 2002 Introduction to Computer Science (3) EN ESB
CR: COP 2000L. Introduction to the concepts of algorithmic formulation of problems for computer solution and the general abstract operations used in these formulations.

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. Development of subroutines, relative I/O and data base applications used in a comprehensive data processing environment.

COP 2200 SC Fortran Programming (3) EN ESB
PR: CGS 2060. No credit for Engineering Majors. Solution of scientifically oriented problems using the FORTRAN language. Particular emphasis is placed on file manipulation and system libraries.

COP 2400 Computer Systems (3) EN ESB

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

COP 3514 Program Design (3) EN ESB
PR: COP 2510 or comparable introductory programming course and DPR. The class extends 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 3520 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 4023 Comparison Of Programming Languages (3) EN ESB
PR: EEL 4851C. A comparative study of procedural and nonprocedural computer languages, emphasizing the fundamental differences in information binding, string and data structures, manipulation, control and I/O structures in different languages.

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 process, synchronizing, and storage management policies.

COP 4650 Operating Systems for Information Technology (3) US EIT
PR: EEL 4855 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 with operating systems.

COP 4650L Operating Systems Laboratory for Information Technology (1) US EIT
PR: EEL 4855 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 operating systems in a lab environment.

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
Designed to provide the information and analytical tools necessary to interpret current Sub-Saharan African politics. Survey of political organization in traditional African societies; politics under colonial rule; the struggle for independence, and post-independence politics.

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

CPO 5934 Selected Topics in Comparative Politics (3) AS POL
Pr. 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 311 Form and Technique of Fiction -6A (3) AS ENG
A study of narrative forms such as the anecdote, tale, character sketch, incident, monologue, epistolary story, and short story as they have been used in the development of fiction and as they exist today.

CRW 3112 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, ballad, villanelle, sestina, etc. Principles in the narrative, dramatic, and lyric modes are also explored.

CRW 3312 Poetry I (3) AS ENG
PR: CRW 3311. An introduction to poetry writing utilizing writing exercises 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 3322 Poetry III (3) AS ENG
PR: CRW 3321. An advanced fiction workshop in which students are expected to create works exhibiting a firm knowledge of the principles explored in the preceding courses.

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

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

CWR 4320 Hydrology I (3) EN EGX
PR: EGN 3535. 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 3533, CWR 4202. This 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: CWR 4103, ENV 3001. A capstone water resources design experience for seniors in Civil and Environmental Engineering. A design oriented course to design both industrial and domestic water treatment, and water transport systems and hydraulic systems, including drainage, water supply, and flood control.

DAA 2105 Modern Dance I (2) VP DAN
A studio class for students with a serious interest in concert modern dance. 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 by majors.

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

DAA 2208 Ballet III (2) VP DAN
PR: Admission by placement audition and DAA 3502. Continuation of DAA 3502. Further emphasis on projection, phrasing, rhythm patterns and dynamics. Solo and ensemble studies 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 by majors.

DAA 2761 Introduction to Yoga (2) VP DAN
This course is designed to provide students with an understanding of basic Yoga philosophy and practice which includes postures, meditation and breathing techniques. May be repeated by majors.

DAA 3108 Modern Dance II (3) VP DAN
PR: Admission by placement audition. Study of principles of modern dance technique. Practical work in exercises and movement phrases, utilizing changing rhythms and dynamics. Concert and performance attendance required. May be repeated by majors.

DAA 3109 Modern Dance III (2-3) VP DAN
PR: Admission by placement audition. Continuation of DAA 2104. Further emphasis on style and phrasing. Work on projecting mood and quality by dancing and rehearsing in more advanced choreography, leading to performance. May be repeated by majors.

DAA 3205 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 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 by majors.

DAA 3208 Ballet III (2-3) VP DAN
PR: Admission by placement audition. Continuation of DAA 3204. Intensification of barre exercises for the development of strength and form. Application of phrasing and movement. Material covered as practical work in class with a few outside projects. May be repeated by majors.

DAA 3394 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. Ballet majors are required to complete two semester hours. May be repeated by majors.

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 up to 4 credit hours. May be repeated by majors.

DAA 3614 Choreography I (2) VP DAN
PR: DAN 3614. CR: DAA 2104 or above. Study and execution of basic principles of composition. Preparation of studies in theme and variations, breath phrases and metric phrases.
DAA 4920 Dance Studies (1-4) VP DAN
PR: Admission by placement audition or CI. 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 by majors.

DAA 4211 Ballet IV (2-4) 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.

DAA 4616 Choreography II (2) VP DAN
PR: DAA 3615 or CI. CR: DAA 3109. This course is designed to meet the needs of students in Dance Pedagogy to develop concepts of pedagogy based on principles of teaching-secondary student. 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, video, observation, and reading. The student will submit choreographic ideas for instructor's approval, then proceed with rehearsals. Lec.-lab., reading. Rehearsal hours are required.

DAA 4617 Choreography IV (2) VP DAN
PR: DAA 4702. The student will prepare studies based on free form, minimal art, and chance methods. Lec.-lab., reading. Rehearsal hours are required.

DAA 4694 Senior Choreography Project (1) VP DAN
PR: senior Major, CI, CC. 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 participation in special workshops.

DAE 3351 Ethnic/Folk Dance (2) VP DAN
An exploration of ethnic and folk dance forms in various cultures of the eastern and western hemispheres. Students will investigate ways of doing, making, and teaching dances through studio work, video, observation, and reading. 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
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 -64 X LW (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: Senior major status. A study of career opportunities in performance, teaching, research, design, and choreography. To aid majors in self-appraisal as artists and develop methods to further their potential in the professional world. Discussion, critical evaluation and projects.

DAN 4404 Movement Analysis (2) VP DAN
Specialized study in movement theories, body alignment, and movement patterns focusing on the scientific and analytical basis of movement in dance with consideration for developmental processes, technique, creative expression, and performance.

DAN 4784 Specialized Study in Movement Theory and Body Alignment (2) VP DAN
Analysis of scientific basis of movement for the dancer through the study of body alignment and movement theories related to dance techniques.

DAN 4905 Directed Reading (2) VP DAN
PR: CI and CC. A contract with all necessary signatures is required for registration. Readings in topics of special interest to the student. Selection of topic and materials must be agreed upon and appropriate credit must be assigned prior to registration. May be repeated by majors.

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

DAN 2100 Introduction To Dance -64 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 2100 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 3420 Introduction to Laban Movement Analysis (3) VP DAN
Laban Movement Analysis is a system which enables one to see, describe and learn movement in a clear, efficient and objective manner. Space, shape, dynamics and human development patterns are categories which are studied by means of lecture, improvisational movement and reading materials.

DAN 3584 Practicum In Dance Production (1-2) VP DAN
A practicum in mounting dance concerts with shop work and backstage participation. Intended for students working in costume, set preparation, light presentation, stage management and production crew. Dance majors must have at least 2 credits for graduation accumulated in two different semesters. 40 hour lab required.

DAN 3584 Music For Dance (2) VP DAN
PR: DAN 2610 or CI. Development of musical skills in movement studies. Continued study of the inter-relationship of music and dance through movement experiences, observations, video, and writing.

DAN 3615 Music For Dance II (2) VP DAN
Development of practical music skills in relation to dance. Continued problems in rhythmic materials and the relationship of music forms to dance. Elements within historical context. May be repeated up to 4 credit hours.

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 -64 X LW (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: Senior major status. A study of career opportunities in performance, teaching, research, design, and choreography. To aid majors in self-appraisal as artists and develop methods to further their potential in the professional world. Discussion, critical evaluation and projects.

DAN 4404 Movement Analysis (2) VP DAN
Specialized study in movement theories, body alignment, and movement patterns focusing on the scientific and analytical basis of movement in dance with consideration for developmental processes, technique, creative expression, and performance.

DAN 4784 Specialized Study in Movement Theory and Body Alignment (2) VP DAN
Analysis of scientific basis of movement for the dancer through the study of body alignment and movement theories related to dance techniques.

DAN 4905 Directed Reading (2) VP DAN
PR: CI and CC. A contract with all necessary signatures is required for registration. Readings in topics of special interest to the student. Selection of topic and materials must be agreed upon and appropriate credit must be assigned prior to registration. May be repeated by majors.

DAN 4906 Directed Study (1-5) VP DAN
PR: CI. CC. Independent studies in the various areas of Dance. Course of study may be used to fulfill Junior Project. Must receive approval prior to registration. May be repeated by majors.
ECH 4265C Process Engineering 2: Separation Processes (3) EN ECH
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
Not for majors credit. Developmental and psychosocial aspects of childhood, including hereditary, maturation, psychological, and social determinants of child behavior.

DEP 3103 Child Psychology -SS (3) AS PSY
Not for majors 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: For majors, ECH 3023C; for non-majors ECH 3023 or CHM 4410. Correlation of thermodynamic properties of real systems to design and implementation of behavior analysis methods in applied settings. Includes both field practicum and didactic component. May be repeated for a maximum of 6 hours. Does not count toward major credit (S/U only).

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 component. May be repeated for a maximum of 6 hours. Does not count toward major credit (S/U only).

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

ECH 4023 Process Engineering 1: Algebraical and Graphical Description (4) EN ECH
PR: EGN 3358. CR: CHM 4410. An examination of individuals and the physical, cognitive, personality, and social changes which occur throughout the entire life span.

ECH 4033 Child Psychology -SS (3) AS PSY
Not for majors credit. Developmental and psychosocial aspects of childhood, including hereditary, maturation, psychological, and social determinants of child behavior.

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

ECH 4264C Environmental Phenomena (3) EN ECH
PR: MAP 3202, EGN 3358. Transport Phenomena, including fluid flow, heat transfer and mass transfer. Mathematical description and solution of fundamental problems including unsteady-state, multi-dimensional in different coordinate systems (rectangular, cylindrical and spherical) and production terms. Estimation of transport coefficients.

ECH 4265C Process Engineering 2: Separation Processes (4) EN ECH
PR: ECH 3023C, ECH 4264, CHM 4410. Phase equilibrium with the principles of fluid mechanics, heat and mass transfer in the description of separation processes. Selection of thermodynamic properties and limiting operating conditions in cascades — NTU and HTU. Sizing of partial condensers and pressure differential in columns. Transfer to single particles.

ECH 4265L Chemical Engineering Laboratory II (1) EN ECH
CR: ECH 4264C. Chemical Engineering processes laboratory experiments: fluid flow, heat transfer, phase and chemical equilibria, reacting systems, and process control.

ECH 4323C Automatic Control I (4) EN ECH

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

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

ECH 4605 Strategies of Process Engineering (3) EN ECH

ECH 4615 Plant Design -MW (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 I (1-4) EN ECH
CR: CI.

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

ECH 5285 Transport Phenomena (3) EN ECH
PR: Senior or GS in Engineering. Basic descriptive equations of fluid, heat, and mass transport. Description and solution to intermediate problems, including unsteady state and multidimensional systems. Estimation of transport and convective coefficients.

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 study loops. The techniques of ratio, cascade, feed forward, selective, override, and multi-variable control techniques are discussed in detail and shown how to utilize to design control systems, z-transforms and discrete controllers including PID, Dahlin and deadline compensation.

ECH 5747C Selected Topics in Chemical Engineering Biotechnology (1-3) EN ECH
PR: Senior or GS 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 enzymes, food engineering, biohazardous waste, and bioseparations.

ECH 5780 Environmental Reacting Systems (3) EN ECH
Application of chemical reaction engineering principles to problems in environmental engineering. Basic chemical kinetics and the modeling of batch and continuous systems. Applications will include bioremediation and transport and remediation.

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

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

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

ECO 1000 Basic Economics -SS (3) BA ECN
No credit after completing either ECO 2023 or ECO 2033. Survey of economic principles and issues. Scarcity, choice, markets,
prices, the monetary system, unemployment, inflation, international trade, and finance.

ECO 2013 Economic Principles (Macroeconomics) - SS (3) BA Ecn
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 (Macroeconomics) - SS (3) BA Ecn
PR: ECO 2013. Introduction to the theory of price determination. How an economy decides what to produce, how to produce, and how to distribute goods and services.

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

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

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

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

ECO 3822 American Economic History (3) BA Ecn
PR: ECO 2023. Growth and evolution of American economic institutions from Colonial times to the present.

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

ECO 4105 Advanced Price Theory (3) BA Ecn
PR: ECO 3100 or ECO 3101 with a grade of "B" or better. 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 Ecn
PR: ECO 3203 with a grade of "B" or better. An advanced analysis of a particular topic or topics in macroeconomics. Areas of study include the theories of money, growth, and business cycles. Discussions of how such theories accord with the data area also presented.

ECO 4303 History Of Economic Thought (3) BA Ecn
PR: ECO 3100 or ECO 3101 with a grade of "C" or better. Development of economic thought from Plato to Marshall.

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

ECO 4401 Introduction to Mathematical Economics (3) BA Ecn
PR: ECO 2013, QMB 3200, and MAC 2243 or MAC 2223 or CI. Mathematical models of optimizing behavior and economic equilibrium.

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

ECO 4504 Public Finance (3) BA Ecn

ECO 4713 International Macroeconomics (3) BA Ecn
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 Ecn
PR: ECO 3100 or ECO 3101 with a grade of "C" or better. Advanced analysis of international trade theory and commercial policy, international economic integration, multinational enterprise.

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

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

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

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

ECP 3203 Labor Economics (3) BA Ecn
PR: ECO 3100 or ECO 3101 with a grade of "C" or better. Determinants of wage and employment levels; occupational, industrial and geographical wage differentials; union and public policy effects on labor markets; the economics of discrimination; inflation, and unemployment.

ECP 3302 Environmental Economics -MW (3) BA Ecn
PR: ECO 2023. An economic analysis of environmental issues. The economics of resource use and pollution control are examined using the concepts of externalities, cost-benefit analysis, public goods, and property rights.

ECP 3333 Economics of Pollution and Antitrust (3) BA Ecn
PR: ECO 2023. Economic analysis of the rationale and performance of government regulation and antitrust policy. Examination of antitrust issues such as price fixing, mergers, and monopolization, and issues regulating electric utilities, airlines, trucking, consumer product safety, product quality, and the environment.

ECP 3350 Economics of Health (3) BA Ecn
PR: ECO 3100 or ECO 3101 with a grade of "C" or better. Application of economic methods to health care topics such as demand for medical care, public and private health insurance, physician and hospital supply of medical care, government regulations, and national healthcare systems.

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

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

ECP 4451 Law and Economics (3) BA Ecn
PR: ECO 2023. Advanced analysis of the economic impact of tort, criminal, property, and contract law as well as in the formation and adjudication of law.

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

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

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

EDE 4301 Teaching Methods in the Elementary School (3) ED Ede
PR: EDE 4941 and EDG 4620. Techniques and strategies appropriate to instruction of children in educational settings.

EDE 4305 Independent Study: Elementary Education (1-4) ED EDE
S/U only. Specialized independent study determined by the student’s needs and interests.

EDE 4930 Directed Study: Elementary Education (1-4) ED EDE
PR: Senior standing. To extend competency in teaching field. May be repeated if topics vary.

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.
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 4950 Directed Study (1-4) ED EDC
PR: Senior standing. Offered only as a scheduled class. Department permit required. To extend competency in teaching field.

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

ECC 4088 Literature in Early Childhood Education -6A LW (3) ED EDU
Jr./Sr. Standing. Emphasis is placed on developing knowledge of literature for younger children (0-8 yrs.) and methodologies and strategies for utilizing literature to teach literacy in content areas of the curriculum.

ECC 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, emphasizing professional beliefs regarding teaching young children, and developing an appropriate learning environment.

ECC 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.

ECC 4212 Integrated Curriculum: Social Sciences/Health & 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 emphasis on developmentally appropriate practices in early childhood learning settings.

ECC 4300 Cognitive Experience 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.

ECC 4303 Creative and Affective Experiences for Young Children (3) ED EDU
PR: Admission to College of Education. Early Childhood majors only. Develops students’ understandings of children’s creative expression through art, music, movement, play and drama. Emphasizes how to plan, implement, and evaluate appropriate learning experiences as well as selection of appropriate instructional materials.

ECC 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.

ECC 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.

ECC 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.

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

EEC 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.
EEL 4940 Internship: Early Childhood (10-12) ED EDU
CR: EEC 4936. S/U only. Teacher candidates are required to demonstrate professional competencies during one semester of full-time internship in a public or private elementary school.

EEC 4941 Field Experience I (3) ED EDU
PR: Admission to College of Education. EDF 4111. 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 an 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 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. A survey of emotional, behavioral and social disorders in children and youth. History of the field, definitions, classifications, theoretical approaches, intervention techniques, classroom management, service delivery models, trends and issues.

EED 4909 Directed Study: Behavior Disorders (1-3) ED EDS
PR: Senior standing, 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 (3) ENE ENGE
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 3410 Fields and Waves I (3) ENE ENGE
PR: MAP 3302, PHY 2049, PHY 2049L. A basic introduction to electromagnetic field theory, including static and dynamic electromagnetic fields.

EEL 4785 Computer Information Networks for Information Technology (1) US EIT
CR: COP 4650 or CI. The lab section of this course will allow students to apply hardware and software concepts discussed in class to real-world applications. Topics to be included are network analyzer, protocol analyzers, network protocols, and Internet resources. Use of analytical software. Computer programming in C++ for the solution of Electrical Engineering problems.

EEL 4781C Distributed Processing and Computer Networks (3) EN EGE
PR: Admission to College of Engineering. 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.

EEL 4748 Microprocessor-Based System Design and Application (3) EN EGE
PR: EGN 3373, CR: EEL 4705L. 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, filtering and power distribution. Part one of a two-part sequence. EE majors only. Not available on an S/U basis.

EEL 4543 RF/Microwave Circuits II (3) EN EGE
PR: EEL 4430. 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, filtering and power distribution. Part one of a two-part sequence. EE majors only. Not available on an S/U basis.

EEL 4472 Electromagnetics (3) EN EGE
PR: MAP 2302, PHY 2049, PHY 2049L and EE majors or CI. Topics include static and dynamic electromagnetic fields, applications, and environmental effects (effects of radiation, magnetic fields).

EEL 4512 Communication Systems (3) EN EGE
PR: EEL 4102. Provides an introduction to the fundamental principles and techniques of analog and digital communication systems. Theory is put to 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

EEL 4575 Linear Control Systems (3) EN EGE
PR: EEL 3100. Introduction to analysis and design of linear feedback control systems. Covers block diagram, flow charts, Bode, Nyquist, and root locus techniques.

EEL 4705 Logic Design (3) EN EGE

EEL 4743L Microprocessor Laboratory (1) EN EGE
PR: EEL 4705. Microprocessors and microcontrollers for data entry, processing, display and real time control. Intellectual property and software development and design.

EEL 4744 Microprocessor Principles and Applications (3) EN EGE

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 projects on development of an experimental application system.

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

EEL 4781C Distributed Processing and Computer Networks (3) EN EGE
PR: EEL 4851C. Design and analysis of distributed processing systems. Covers communication hardware and software, network operating systems, and reliability enhancement techniques.

EEL 4795 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, dataflow, high-level protocols, and the ISO model are discussed. Bus, ring, star, and wireless topologies are presented.

EEL 4785L Information Networks Laboratory for Information Technology (1) US EIT
CR: COP 4650 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 3100, COP 3514. Fundamentals of data organization for purposes of program efficiency, clarity and simplicity will be addressed.

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

**EEL 4855 Data Structures and Algorithms for Information Technology (3) US EIT**
- PR: COP 920 or CI. Representing data for manipulation by the computer are 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. S/U 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 4305, EEL 4512, EEL 4657, EEL 4744. An introduction of engineering design with applications to specific practical engineering problems. Included are discussion of real-world issues as economics, safety, ethics and the environment.

**EEL 4935 Special Electrical Engineering Topics I (1-4) EN EGE**
- PR: EEL 4705 or CI. Design, layout, simulation, and test of custom digital CMOS/VLSI chips, using a CMOS cell library and state-of-the-art CAD tools. Digital CMOS static and dynamic gates, flip flops, CMOS array structures commonly used in digital systems. Top down design example of a bit slice processor.

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

**EEL 5326 Digital CMOS/VLSI Design (3) EN EGE**
- PR: EEL 4705 or GS. Design, layout, simulation, and test of custom digital CMOS/VLSI chips, using a CMOS cell library and state-of-the-art CAD tools. Digital CMOS static and dynamic gates, flip flops, CMOS array structures commonly used in digital systems. Top down design example of a bit slice processor.

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

**EEL 5357 Analog CMOS/VLSI Design (3) EN EGE**

**EEL 5382 Physical Basis Of Microelectronics (3) EN EGE**
- PR: EEL 4472 or GS. Quantum mechanics with emphasis on electronic properties in atoms, molecules, and crystals; quantum statistics; energy band theory; crystal structures; defect chemistry; semiconductor properties.

**EEL 5437 Microwave Engineering (3) EN EGE**
- PR: EEL 4472, EEL 4102, or GS. Introduction to passive and active components, devices, and circuits, including transmission lines and wave guides, employed in microwave integrated circuits and systems.

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

**EEL 5572C Local and Metropolitan Area Networks (3) EN EGE**
- PR: EEL 4512 or GS. Basics of data communication exchange of digital information over communication media; Basics of LANS/ MANS and the components: media topologies, access methods, etc.; LAN/MAN architectures and protocols-IEEE 802.3 LAN Standards; High speed LANs such as FDDI, IEEE 802.6 MAN, etc., Internetworking; LAN/MAN Design and selections.

**EEL 5581 Digital Control Systems (3) EN EGE**
- PR: EEL 4657 or GS. Sample data and digital control processes

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

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

**EEL 5935 Special Electrical Engineering Topics I (1-3) EN EGE**
- PR: EEL 3936 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 4011. The purpose of this course is to introduce students to the historical and theoretical perspectives on educating students with learning and behavioral differences, develop a critical understanding of current practices in service delivery systems, and examine professional issues and trends that impact the future of the field.

**EEX 4070 Integrating Exceptional Students in the Regular Classroom (2-3) ED EDS**
- PR: credit for department majors. Designed for non-special education majors. Includes basic identification techniques and strategies to promote academic and social integration and interaction of “mainstreamed” exceptional students. Concurrent field experience projects are included.

**EEX 4221 Educational Assessment of Exceptional Students (3) ED EDS**
- PR: EDF 3214, 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 the Exceptional Adolescent and Adult (3) ED EDS**
- PR: EEX 4011 or equivalent or DPR. Procedures for implementing educational programs for exceptional adolescents and adults. Topics include service delivery, curriculum, academic remediation, advocacy, utilization of ancillary services, alternative programs, and community resources.

**EEX 4604 Behavior Management for Special Needs and at Risk Students (3) ED EDS**
- PR: EEX 4011. CR: EEX 4941. Techniques to prevent, analyze, and manage challenging and disruptive classroom behavior as well as teaching social skills.

**EEX 4742 Narrative Perspectives on Exceptionality: Cultural and Ethical Issues -6A LW (3) ED EDS**
- PR: DPR. CR: EEX 4941. Effective teaching principles, instructional management procedures, and specialized teaching techniques for exceptional students.

**EEX 4846 Clinical Teaching in Special Education (3) ED EDS**
- PR: EEX 4011, DPR. CR: EEX 4941. Effective teaching principles, instructional management procedures, and specialized teaching techniques for exceptional students.

**EEX 4905 Independent Study: Exceptional Student Education (1-3) ED EDS**
- PR: DPR. S/U only. Specialized independent study determined by the student’s needs and interests.

**EEX 4999 Directed Study: Exceptional Student Education (1-3) ED EDS**
- PR: Senior standing. DPR. To extend competency in teaching field.

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

**EEX 4940 Internship: Exceptional Student Education (1-10) ED EDS**
- PR: EEX 4941. S/U only. One full semester of internship in an accredited public or private school

**EEX 4941 Practicum in Exceptional Student Education (1-4) ED EDS**
- PR: EEX 4011; EEX 4742 and EEX 4846. Designed to provide teacher candidates with carefully
planned and supervised clinical experiences with exceptional students populations in a variety of settings. Candidates demonstrate the ability to apply concepts, theories and research. Repeatable up to six credit hours.

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

EEX 5702 Working With Families: A Pluralistic Perspective (3) ED EDS
PR: Introductory course in special education, GS. The impact of the socio/cultural environment on the education of at-risk children and children with disabilities; family systems theory, principles of multi-cultural education, strategies for working effectively with families of school-age children, diverse cultures and family structures represented in school populations today.

EGI 5051 Nature and Needs of the Gifted (3) EN EGB
This survey course examines the characteristics and educational needs of children and youth who are gifted, including those from special populations. Emphasis is on giftedness as defined historically, nationally and locally. The course also explores changing views of intelligence and talent development related to policy and practice in gifted education as well as the processes of identification and programming. Opportunities are given to work with children in a laboratory setting and to prepare materials to be used with small groups of children.

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

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

EGN 2041 Undergraduate Supervised Practicum in Gifted Student Education (1-6) ED EDS
Organized, supervised experiences with gifted children. Specific experiences may be either a combination of observation and assistance with gifted children or individual projects.

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

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

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

EGN 2080 Light and the Arts: A Quantitative Approach -FA (3) EN EGB
EIN 4411 Manufacturing Processes (3) EN EGS
PR: EGS 1113. The study of basic manufacturing processes and precision assembly. CAD/CAM including NC programming.

EME 5401L Automation and Robotics (3) EN EGS
PR: EIN 4411. Introduction to the practices and concepts of automation as applied to material handling, inventory storage, material transfer, industrial processes and quality control.

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

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

EIV 4914 Special Industrial Projects I (1-3) EN EGS
EIV 4210 Program Management: Industrial-Technical Education (4) ED EDV
Planning, organizing, motivating and controlling of the learning environment in Industrial-Technical Education classroom and laboratories. Program standards for OSHA, program review, record keeping, and budgeting will be examined.

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

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

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

ELD 4902 Independent Study: Specific Learning Disabilities (1-3) ED EDS
PR: DPR. S/U only. Specialized independent study determined by student's needs and interests.

ELD 4903 Directed Study: Specific Learning Disabilities (1-3) ED EDS
PR: Senior standing. DPR. To extend competency in teaching field.

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

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

ELR 3302L EE Electronics Laboratory (1) EN EGE
PR: ELR 3301L and EEL 3302, CR: EEL 4305. Design, build and test active electronic networks; computer-aided design tools; computer data acquisition strategies.

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

EME 5324 Corrosion of Engineering Materials I (3) EN EGX
PR: EGN 3365L. Principles of electrochemical corrosion and the representation of corrosion processes by polarization diagrams. Origin and prevention of the localized forms of corrosion and approaches to corrosion control.

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

EME 2040 Introduction to Computers in Education (3) ED EDK
Designed as an introduction to computer technology and its role in teaching and learning processes. Topics include educational software, ethical and social issues, hardware, interactive multimedia, models for integrating technology into instruction, productivity tools and telecommunications.

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

EMA 5324 Computational Methods (3) EN EGR
PR: MAP 2302. CR: EML 3041L. Techniques to solving engineering problems using numerical methods. Topics include roots of equations, matrix algebra, simultaneous linear equations, numerical integration and differentiation, and curve fitting.
EML 3262 Kinematics and Dynamics of Machinery (3) EN EGR
Kinematics of machines and mechanisms; position, velocity, and acceleration analysis of mechanisms; cams; gear trains; inertia forces in mechanisms; flywheels; balancing of rotating masses.

EML 4601 Air Conditioning Design (3) EN EGR

EML 4905 Independent Study (1-4) EN EGR
PR: CI. Specialized independent study determined by the student’s needs and interests.

EML 4930 Special Topics in Mechanical Engineering (1-4) EN EGR

EML 5245 Tribology (3) EN EGR

EML 5395 Motor Selection and Control (3) EN EGR
PR: ENG 3373, ENG 3433. Standard electrical voltages; power wiring in industrial plants; NEMA motor designs and their uses; techniques for estimating motor starting times and temperature rise; motor selection, starting, and operating safety interlocks; conventional starting and control systems; programmable controllers; electrical code requirements for conductors and protective devices.

EML 5422 Internal Combustion Engines (3) EN EGR
PR: EML 4106 or CI. This course is for the application of thermodynamics, chemistry, dynamics of machinery, electronics and fluid mechanics. Topics covered are: introduction of engines, fuels and combustion, modeling, ignition, fuel systems, balance of reciprocating mechanisms and emission control of exhaust pollutants.

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

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

EMR 4011 Mental Retardation and Developmental Disabilities (3) ED EDS
PR: EEX 4011 or equivalent. This course is designed to provide students with a broad introduction to the area of mental retardation and developmental disabilities with particular emphasis on the educational aspects. This course is required by the state for certification in mental retardation.

EMR 4230 Educating the Severely/Profoundly Handicapped (3) ED EDS
PR: EMR 3011 or DPR. Emphasis on educational methods and materials for teaching children with severe/profound handicaps. Practicum/field experience linkage.

EMR 4905 Independent Study: Mental Retardation (1-3) ED EDS
S/U. May be repeated when subjects vary. DPR. Specialized independent study determined by the student’s needs and interests.

EMR 4909 Directed Study: Mental Retardation (1-3) ED EDS
PR: Senior standing, DPR. Offered only as a scheduled class. To extend competency in teaching field.

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 - Honors -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
PR: ENC 1121. 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. Will not be counted toward the English major.

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 in 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. 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 3213, 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 with different topics.

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

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

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

ENG 4907 Directed Reading (3) AS ENG
PR: CC. Directed study in special projects.

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

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

ENG 4970 Honors Thesis (3) AS ENG
PR: ENG 4935, ENG 4936. A study of the student's ability to read and interpret the text. May be taken twice for credit with different topics.

EPL 3232 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.

EPL 3331 Early Shakespeare (3) AS ENG
A study of from five to eight of Shakespeare's comedies, histories, and early tragedies, ending with Hamlet. Special attention will be given to developing the student's ability to read and interpret the text.

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

EPL 4122 British Novel Through Hardy (3) AS ENG
A study of early and later British novels such as Fielding, Smollett, Sterne, Austen, Scott, Dickens, Eliot, and Hardy, among others.

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

EPL 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 Wordsworth, Yeats, Joyce and Woolf. Specific topics will vary. May be taken twice for credit with different topics.

EPL 4311 Chaucer (3) AS ENG
An intensive study of The Canterbury Tales and major works of the Middle Ages and the later Middle Ages.

EPL 4338 Advanced Studies in Shakespeare (3) AS ENG
PR: EPL 3331 or EPL 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.

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

ENS 1483 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 listening comprehension.

ENS 1484 English for Foreign Students II (3) AS WLE
PR: ENS 1483 or CI. A continuation of ENS 1483. Emphasis on reading and composition.
process analysis and design. Field monitoring of surface water quality; simulation of transport and transformation of pollutants in surface waters.

ENV 4891 Capstone Environmental Engineering Design -MW (3) EN EGX
PR: EWR4103, ENV 3001, 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 stormwater collection systems. The course emphasizes the design procedure normally used in engineering practice.

ENV 5101 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.

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 control technology are discussed. Regulatory aspects and air pollution standards are covered.

ENV 5105 Air Resource Management (3) EN EGX
PR: CI. Air pollution source impacts on ambient air quality, modeling, regulatory approaches, source strategic controls and surveillance.

ENV 5334 Hazardous Waste Management and Remedial Action (3) EN EGX
PR: ENV 5345 and one of the following: ENV 6347, ENV 6519, ENV 6558, or CI, majors only. Introduction to hazardous waste management and remediation: RCRA regulatory concepts; definitions, aspects of hazardous waste management from within the plant to final 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 3001, ENV 4004L, ENV 4417 Theory, experimental investigation, and modeling of operations and processes in engineered and natural systems. Laboratory evaluation of unit operations and process used in water and wastewater treatment including chlorination, activated carbon adsorption, biological treatment, gas/liquid mass transfer, filtration, coagulation, flocculation, and settling. This course is restricted to majors, has no formal laboratory section associated with the course, is not available on an S/U basis only, is not cross-listed with another department or college.

ENY 3004 Introduction to Entomology (3) AS HTY
PR: BSC 2010, BSC 2010L, BSC 2111, BSC 2111L. An introduction to general aspects of insect morphology, development, and classification. The identification of local forms will be emphasized. Lec.-lab.

ENY 5505 Aquatic Entomology (3) AS HTY
PR: ENY 3004 or CI. Taxonomy, development, and ecology of aquatic insects with emphasis on local forms. Lec.-lab.

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

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

ESI 416C Computers in Industrial Engineering (3) EN EGB

ESI 4221 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 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, 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 4364, CR: EIN 4333, EIR 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 5219 Statistical Methods For Engineering Managers (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
PR: 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 5470 Manufacturing Systems Analysis (3) EN EGS
PR: CC, majors only. The study of systems of manufacturing entities such as machine tools, robots, and materials handlers. Emphasis is on mathematical description of integrated systems and system optimization.

ESI 5526 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 3931 Special Topics (1-5) EN ESB
ETG 3932 Special Topics (1-5) EN ESB
ETG 3933 Special Topics (1-5) EN ESB
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.

ETG 4934 Special Topics (1-5) EN ESB
ETG 4935 Special Topics (1-5) EN ESB
ETG 4936 Special Topics (1-5) EN ESB
ETI 4666 Principles of Industrial Operations II (3) EN ESB
PR: CC. No credit for Engineering Majors. Application of techniques developed in the operation of an industrial firm through special projects.

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

EUH 2012 Ancient History II -HP (3) AS HTY
An introductory survey of ancient history. EUH 2012 deals with Rome through the Regal, Republican, and Imperial periods, from the beginnings of civilization in Italy to the division of the Roman Empire. A.D. 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 medieval civilization 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, 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 a study of art, literature, philosophy, education, and religion; with emphasis upon medieval man's changing perception of himself and his world.

EUH 3185 Viking History (4) AS HTY
The role of the Vikings in the shaping of Western history. A comprehensive survey of their institutions, outlook and daily life. Viking expansion into Europe and North America.

EUH 3188 Medieval Society (4) AS HTY
A study of the daily life and attitudes of the medieval nobleman, peasant, townsman, and the agrarian-urban economy and society which affected their lives.

EUH 3189 Medieval Politics (4) AS HTY
An inquiry into the nature, distribution, and use of political power during the Middle Ages, in such institutions as feudalism, monarchy, cities, and the church.

EUH 3202 History of 17th and 18th Century Europe (4) AS HTY
A history of Europe from the beginning of the Thirty Years War to the outbreak of the French Revolution. Political and intellectual developments will be assessed in the light of society and the economy.

EUH 3205 History of Nineteenth Century Europe (4) AS HTY
A comparative study of economic, political, social, and intellectual developments in nineteenth century Europe.

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

EUH 3401 Classical Greece (4) AS HTY
A study of ancient Greece focusing on the brilliant period following the Persian Wars, but 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 509 B.C. to 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 Germany 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 impact of the Weimar Republic, prototype of the embattled democracy.

EUH 3501 British History to 1668 (4) AS HTY
A study of major developments in British history from the 15th century to 1668.

EUH 3502 British History 1668 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 3575 History of Imperial Russia (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, 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 collapse of the USSR. Topics include the origins and development of revolutionary socialism, the Bolshevik seizure of power, Stalinism and the Great Terror, popular dissent and resistance, the treatment and experience of ethnic minorities, Gorbachev and the dissolution of the Soviet Union.

EUS 3000 Europe -SS (3) AS HTY
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
CR: EVR 2001L. An introductory lecture course linking the human and physical/biological world. The course will develop an understanding of population and resource interactions.

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

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 political science, public policy mechanisms and major policy actions relating to environmental issues at the local, national and international level.

EVR 4027 Wetland Environments -MW (3) AS ESP
PR: PCB 3043 or CI. Study of the general properties and ecology of wetlands, examination of the distribution and functions of wetlands, and consideration of wetland conservation and policies.

EVR 4900 Directed Readings (1-6) AS ESP
Open to senior majors only. S/U only. The purpose of this course is to provide advanced students with interdisciplinary research experience in areas of specific interest.

EVR 4905 Independent Study (1-6) AS ESP
Open to senior majors only. S/U only. The purpose of this course is to provide advanced students with the opportunity for independent study in areas of specific interest.

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

EVR 4921 Environmental Science and Policy Seminar (1) AS ESP
Restricted to senior majors. S/U only. A topical reading and discussion seminar based 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 major and non-majors.

EVT 4084 Professional Development in Industrial Technical Education (1-3) ED EDV
Designed for the ITE teacher in forming plans of professional development. Concentrations include the development of a personal education philosophy; attributes in creating harmonious school community relationships; and desirable staff and teacher associations.

EVT 4165 Curriculum Construction: Industrial-Technical Education (4) ED EDV
Design, development, implementation and evaluation of effective curricular materials in industrial, technical and health related occupations; includes individualized and self-paced materials. Open to majors and non-majors.
EVT 4365 Basic Teaching Methods in Vocational Education (4) ED EDV
Examines the role of the vocational instructor in the teaching learning process; looks at factors that promote and inhibit learning. Reviews a wide variety of instructional approaches, techniques and methods and 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 4562 Vocational Education for Special Needs Students (4) ED EDV
Focuses on modifying the vocational education curriculum, laboratory, shop, student outcomes, learning activities, tests, media, etc. to accommodate the unique learning needs of minority, handicapped, disadvantaged, non-traditional and other special needs students.

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

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

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

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

EVT 4990 Internship: Industrial-Technical Education (1-12) ED EDV
CR: EVT 4936. SU/U only. One full semester of internship in a public or private school. In special programs where the intern experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9-12 semester hours.

EVT 4996 Supervised Field Experience: Industrial-Technical Education (1-6) ED EDV
PR: CI. SU/U only. Planned supervised functions in the area of specialization and coordinated with selected schools, government, offices, social agencies, businesses and industries on site.

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

EVT 5604 School Security Development (4) ED EDV
Identifying, assessing, and analyzing, individual, institutional and community needs for the purpose of cooperative program planning, community involvement, and public support.

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

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

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

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

EXP 4523C Cognitive Psychology (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Survey of processes of human learning, information processing, verbal learning, and judgment and decision-making.

EXP 4640 Psychology of Language (3) AS PSY
Historical surveys 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.
FRW 4392 African Images in Francophone Film -HP AF SS MW (3) AS WLE
This is a base course to see how the development of focal art will be seen in a cultural, socio-economic, political and gender issues in French speaking Africa. Course material 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 3800 French Linguistics (3) AS WLE
PR: LIN 3011 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 in French.

FRW 5566 Contemporary France (3) AS WLE
PR: FRE 3500 or equivalent or graduate standing. An advanced course in French civilization and culture including the development of social, artistic, and political trends as well as various current intellectual movements. Text and discussions in French.

FRW 5301 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, Molier, Anouilh, Sartre, Ionesco and others. Will also include Villon, Ronsard, DuBellay, Lamartine, Hugo, Vigny, Musset, Baudelaire, Mallarme, Rimbaud, Valery, Peguy, Eluard, Apollinaire, Char, and others. Course content may vary from year to year. Course taught in French.

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

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

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

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

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

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

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

FRW 5528 Pre-Romanticism (3) AS WLE

FRW 5535 Romanticism and Early Realism (3) AS WLE
PR: FRW 4101 or FRW 4100. A study of the romantic and early realistic movements with emphasis on Lamartine, Vigny, Musset, Hugo, and Balzac.

FRW 5556 Naturalism and Realism (3) AS WLE
PR: FRE 4101. A detailed study of realism and naturalism with emphasis on Flaubert, Zola, les Goncourt, Maupassant, and Daudet.

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

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

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

GEO 3300 Geography of Middle America (4) AS GPY
GEO 3405 Geography of Latin America -6A (4) AS GPY
GEO 3500 Geography of Europe -6A (4) AS GPY
GEO 3554 Geography of Russia -6A (4) AS GPY
GEO 3600 Geography of Africa (4) AS GPY
GEO 3703 Geography of Asia (4) AS GPY

GEB 2750 Doing Business Around the World -SS (3) BA GBA
This course introduces the student to: 1) the nature of international business; 2) the framework of international organizations and the monetary system within which international business functions; 3) forces affecting international business, and 4) management responses to problems caused by international environments.

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

GEB 4890 Strategic Management and Decision Making -MW (3) AS GPY
PR: Senior standing and FIN 3403, MAN 3025, MAR 3023. The course is intended to provide a unifying, 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 (1-3) BA GBA
PR: CI. SUJ only. Specialized independent study determined by the student's needs and interests.

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

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

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

GEO 2041C Map Interpretation (4) AS GPY
Analysis and synthesis of various types of maps and map projections.

GEO 3471 Introduction to Earth Systems Science -NS (3) AS GPY
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 -NS (3) AS GPY
CR: GEO 3013L. Principles of physical geography; maps, earth-sun relationships; meteorological, hydrological, pedological, aeolian, and glacial processes; and resultant landforms.

GEO 3013L Introduction to Physical Geography Lab (1) AS GPY
Laboratory portion of introduction to physical geography (GEO 3013).

GEO 3164C Quantitative Methods (4) AS GPY
PR: 12 credits in Geography or CI. Statistical analysis in geographic research.

GEO 3180 Digital Thematic Mapping (4) 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 (4) AS GPY
Systematic treatment of human activities on earth; population, settlement, agriculture, industry, trade, transportation, and political aspects are among those considered.

GEO 3602 Urban Geography (4) AS GPY
PR: GEO 3402 or CI. An analysis of urban areas; growth, location, spacing, and size. Development, site, situation, internal structure, and hinterland are considered.

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 applications.

GEO 4114C 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.
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GEO 4151C Advanced Geographic Information Systems (4) AS GPY
PR: GEO 3140C 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 4265 Soil Genesis and Classification (3) AS GPY
PR: GEO 3013, 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 3164 or CI. Examination of the physical, social, economic, political, and cultural factors that create the phenomena of natural hazards. Case studies from around the world will include floods, droughts, hurricanes, wildfires, heat waves, wildfires, earthquakes, tsunamis, and volcanoes.

GEO 4372 GIS and Conservation -6A (4) AS GPY
The distribution, exploitation, and conservation of physical and human resources, ecology.

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 4470 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, ghetto 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 or 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 an emphasis on developing.

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

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

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 climosequences, biosequences, toposequences, lithosequences, chronosequences, and anthroposequences.
GEY 4100 Survey of German Literature I (3) AS WLE
Old High German and Middle High German literature in modern German translation, the literature of Humanism and Baroque, the classical period.

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

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

GEY 4930 Selected Topics (1-3) AS WLE
Study of an area of focus or theme.

GEY 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 Ricke, Kafka, Heine, Brecht.

GEY 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, Bolt, Uwe, Johnson, Grass, Aichinger, Eich Enzensberger, Bachmann.

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

GEY 5545 Realism (3) AS WLE
Jenaer circle and Heidelberger circle; the late Romantic period, the writers between Classicism and Romanticism.

GEY 5555 Realism (3) AS WLE
Selected plays by Grillparzer, Grabbe, Buchner, Heine, Immerman, Stifter, Meyer, Storm, Raabe, Hulshoff, and Morike.

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

GEY 5615 Schiller (3) AS WLE
Selected drama, philosophical, and aesthetic writings.

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

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

GEY 3625 Sociocultural Aspects of Aging -6A SS AF (3) AS GEY
Consideration of human aging in a broad sociocultural context. Course emphasis will be on historical, philosophic, and demographic aspects of aging, theories of social gerontology, attitudes toward aging and the aged, cross-cultural perspectives on aging, the sociology of retirement, and aging and the community.

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 services 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 the basic definitions of LTC environments, 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 informed 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.

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 social research in gerontology. Design of gerontological studies, collection and analysis of data, interpretation of results, and preparation of reports.

GEY 4608 Alzheimer's Disease Management (3) AS GEY
PR: GEY 2000 or GEY 3326. This course will provide instruction on effective approaches for providing care to persons with Alzheimer's Disease and related disorders in residential and home care settings. The major dementing disorders and typical behaviors presented by patients, are 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 in 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 MW (3) AS GEY
A consideration of the major ethical and legal issues in aging and their implications for public priorities and services.

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

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

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

GEY 5602 Sociological Aspects Of Aging (3) AS GEY
Emphasis is on applied aspects of social science and mortality. The sociological frame of reference, the interrelationships between the aged (or aging) and the structure and function of the social system and its major institutionalized subsystems.

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

GEY 5642 Perspectives of 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 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 2036 Earth and Environmental Geology -NS (3) AS GLY
May substitute for GLY 2010 for geology majors. This course examines the geology of the earth and the environment, using an earth systems approach that looks at interactions between the lithosphere, hydrosphere, atmosphere, and biosphere. Students will 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 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, the solar system, and earth, evolution of life, key extinction's including the dinosaurs, evolution of the primates, and the environmental future of the earth. (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 from physics and astronomy. 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
Lectures 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 3311 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 3420C 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 Paleoecology (4) AS GLY

GLY 3554C The Earth's Surface (4) AS GLY
PR: At least one course in Geology with lab. Principles of weathering, erosion, production, and transport of sediment on the earth's surface, and the resulting geomorphology. Modern sedimentary environments and the process-response systems that govern them. Course is open to anyone with at least one course in geology with lab. Course is not available on an S/U basis for geology majors; it is for other majors.

GLY 3610C Introduction to Invertebrate Paleontology (4) AS GLY
PR: GLY 2015L or equivalent strongly encouraged as background. Lectures cover principles and applications of paleontology, including biostatigraphy, taphonomy, paleoecology, and micro- and macroevolutionary patterns and processes. Labs survey the invertebrate phyla comprising the bulk of the fossil record.

GLY 3720C The Fluid Earth (4) AS GLY
PR: GLY 2015L, MAC 2311 and MAC 2312 or equivalent; CHM 2045 and CHM 2046; PHY 2048 and PHY 2048L. Physical, chemical and biological processes affecting fluids of the lithosphere, oceans and atmosphere. Water as a geologic medium and global entity. A systems approach. Not available as S/U for geology majors; S/U available for others.

GLY 3850 Geology For Engineers (3) AS GLY
PR: Junior standing in College of Engineering or CI. No credit toward the geology major, or for those with credit for GLY 2010. An examination of geologic materials and processes designed for engineering students; classification and properties of earth materials, surface processes, site investigation techniques, applications of geology to the solution of engineering problems.

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

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

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, biologic, and chemical geologic processes have varied with time. Lec.-Lab.

GLY 4145 Computational Geology (3) AS GLY

GLY 4734 Beaches and Coastal Environments -MW (3) AS GLY
A comprehensive introduction to the nature of all coastal environments including beaches, dunes, tidal inlets, estuaries, reefs, and river deltas. Emphasis will be on the natural state of 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, desert and climate, mining and mining and politics.

GLY 4820C Fluid Earth 2: Hydrogeology (4) 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.

GLY 4915 Undergraduate Examination (1-3) AS GLY
PR: Senior or advanced junior standing and written permission of department prior to registration. S/U only. Individual experimental investigations with faculty supervision.
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GLY 4920 Geology Colloquium (1) AS GLY
PR: Senior standing in Geology. S/U only. Weekly topical lectures by faculty, graduate students and invited speakers.

GLY 4921 Geocommunication (3) AS GLY
A course in communicating within the disciplines of the earth sciences. Emphasis will be on: writing for publication and technical reports, preparation and presentation of posters, and preparation and presentation of oral papers in earth sciences. Course is open to anyone majoring in geology, geography, anthropology or environmental science and policy. Course is not available on an S/U basis for geology majors; it is for other majors.

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

GLY 4930 Selected Topics in Geology (1-4) AS GLY
Each topic is a course under the direction of a faculty member with the content depending on the interests of the students and faculty involved. All areas of geology included.

GLY 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.

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

GLY 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 skills of a practicing field geologist. Topics vary widely, with several different offerings each semester. May be repeated for credit.

GLY 4949L Practical and Applied Geology: Computational Experience (1) AS GLY
PR: Junior standing, declared Geology major, and at least 12 credit hours of Geology courses, or 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.

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

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

GLY 5965 Statistical Models in Geology (3) AS GLY
PR: STA 2023 or equivalent or CI. Application of statistical methods to geological problems. Emphasis on sampling plans, nature of geologic distributions, and application of analyses of variance techniques to geological problems. Lec.-lab.

GLY 5932 Selected Topics in Geology (1-4) AS GLY
PR: Senior or advanced junior standing. Each topic is a course under the direction of a faculty member. All areas of geology included.

GRA 3545 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 conversational and electronic tools and techniques to the graphic design process.

GRA 3548 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 visualization and problem solving. Students will increase their skill with web based design and photo-editing software.

GRA 3549 Multimedia Systems I (3) VP ART
Restricted to majors. This course introduces multimedia systems and focuses on their use as tools in the production of digital multimedia. Content covers all key hardware, navigation, and operating components.

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

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

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

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

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

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

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

GRW 4905 Directed Reading (1-4) AS WLE
Departmental approval required.

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

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

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

HBR 1120L Modern Hebrew I Laboratory (1) AS WLE
CR: HBR 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.

HBR 1121 Modern Hebrew II (4) AS WLE
PR: HBR 1120 or its equivalent; CR: HBR 1121L. A continuation of HBR 1120. An intensive study of basic skills; pronunciation, listening comprehension, speaking and some composition. More sophisticated oral/aural skills are attained. Basic reading skills are acquired.
HBR 1121L Modern Hebrew II Laboratory (1) AS WLE
CR: HBR 1121. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

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

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

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

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

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

HIS 3301 War and Society - MW (3) AS HTY
An examination of the ways in which societies have organized themselves for war and how societies are changed by war. Also explores gendered expectations in war, and the changing conduct of war. Does not count for History major or minor credit.

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

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

HIS 3938 Major Issues in History - MW (3) AS HTY
This course provides an introduction to the disciplines of history by examining a specific historical issue and its relation to at least one of the following dimensions: gender, race and ethnicity, international perspectives, environmental perspectives. Does not count for History major or minor credit.

HIS 4104 Theory of History (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 - 6A MW (4) AS HTY
PR: CI. Required of all history majors. Advanced topics in the various fields of history. Emphasis on discussion of assigned readings and on research and writing of a major paper.

HLP 2081 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, stress management, and substance-abuse management.

HLP 4722 Health and Physical Education for the Child (2) ED EDE
This course helps elementary majors understand the health, psychomotor, growth and developmental needs of children, that the may best plan and conduct safe and healthy learning experiences. They also learn the role of the classroom teacher in the total school health program by providing health services, health education units, and physical education and health instruction.

HLP 4941 Wellness Internship (12) ED EDP
Open to Wellness Leadership Physical Education Majors only. S/U only. Supervised performance in adult fitness and/or wellness programs. Full semester on-site.

HSA 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 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
Overview of major public health and health related issues of interest to undergraduates. Course explores a variety of health topics that are related to improving the health and health behaviors of individuals, groups and communities. Specific topics may vary each semester. No prerequisites. Majors and non-majors. May be repeated for up to 6 credits.

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 learning environment; to sequence appropriate health instruction for Pre-K through 5th grade students.

HSC 4541 Human Structure and Function (3) PH CFH
PR: Fundamentals of Biology/Lab or CI. Major concepts of the structure and function of the human body systems and methods by which these concepts may be taught.

HSC 4545 Survey of Human Diseases (3) PH CFH
PR: Fund. of Biology with Lab or CI. An overview of the nature, types, and mechanisms of diseases of the major body systems.

HSC 4933 Special Topics in Public Health (1-6) PH PHC
PR: CI. Content will be governed by student demand and instructor interest.

HSC 5319 Problems of School Age Population (3) PH CFH
Study of health problems and needs of school age students, including a health status screening laboratory.

HUM 1030 The Arts - FA (3) AS HUM
Analysis of selected works of literature, music, film, and visual art, representing artists of diverse periods, cultures, genders, and races. Especially recommended for students who later take 4000-level Humanities courses.

HUM 2211 Studies in Culture: The Classical Through Medieval Periods - HP (3) AS HUM
A survey of literature and the arts of ancient Greece, Rome, and medieval Europe. Issues to be examined may include the dialogue between local traditions and cosmopolitan cultures, the relationship of the individual to society, and the bases for moral values.

HUM 2243 Studies in Culture: The Renaissance Through the Twentieth Century - HP (3) AS HUM
A historical survey of the visual arts, literature, music and thought of Europe from the Renaissance through the Twentieth century. Issues to be examined may include the relationship between science and the arts and the consequences of the growing contacts among world civilizations and the impact of technological change.

HUM 2930 Selected Topics (1-4) AS HUM
An introductory course dealing with a recurrent theme in the arts or focusing on a particular artistic center (a nation or city at a particular time).

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

HUM 3271 Eastern and Western Culture from Antiquity to 1400 - AF (3) AS HUM
A comparative treatment of music, visual arts, theatre, literature, and philosophy in the East and West, proceeding chronologically from Ancient times through the Middle Ages, emphasizing Europe and India.

HUM 3273 Eastern and Western Culture Since 1400 - AF (3) AS HUM
A comparative treatment of music, visual arts, theatre, literature, and philosophy in the East and West, proceeding chronologically from the Renaissances through the present, emphasizing Europe, the United States, and India.

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

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

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

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

HUM 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 history from the French Revolution to the Revolutions of 1848.

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

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

HUM 4446 Twentieth Century Arts and Letters II (4) AS HUM
PR: Sophomore standing or CI. Analysis of selected works of twentieth century art. The course will focus on a particular phase in the development of modernism, a set of themes, or certain stylistic aspects of various arts of the twentieth century.

HUM 4452 Nineteenth Century American Culture (4) AS HUM
PR: Sophomore standing or CI. Study of selected works of art, tracing the course of American expansionism in civilization, and the interaction between the arts and the sciences in American ways of life and work, 1790-1890.

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

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

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

HUM 4930 Selected Topics in Humanities (1-4) AS HUM
PR: Sophomore standing or CI. This course will deal with a recurrent theme in the arts as, for example, love or death, or will focus on artistic centers such as Renaissance Florence or Paris in the 1920s. Topics will vary.

HUM 4931 Seminars 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 selected issue available to majors and non-majors.

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

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

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

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

IDH 2009 Discovery: People, Processes and Problems (3) HC HON
PR: Admission to Honors Program. An appreciation of the research process in multiple disciplines culminating in the production of a collaboratively developed research proposal.

IDH 2010 Acquisition of Knowledge (3) HC HON
PR: Admission into the Honors Program. An appreciation of the problems of understanding and organizing, proceeds through operations such as perception, classification, and inference, among others, as well as the open philosophic questions behind these operations.

IDH 2938 Selected Topics (1-4) HC HON
PR: IDH 2010 or CI. This course is designed to emphasize a selected problem or issue that is meaningful and challenging to University Honors students and special populations. A variety of instructional approaches will be used. Topics will vary each semester. Repeatable for a total of 8 credits.

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

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

IDH 3400 Social and Behavioral Sciences Honors (3) US HON
PR: IDH 2010. Introduction to the concerns 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, proceeds through operations such as perception, classification, and inference, among others, as well as the open philosophic questions behind these operations.

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

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

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

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

IDH 4930 Selected Topics (1-4) HC HON
PR: IDH 2010 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 Honors Program Students who have completed at least one Honors Program Seminar. Senior Honors Program project consisting of an original creative work in literary, visual or performing arts, or in a community-oriented endeavor of some intellectual caliber. Either a project or an Honors Thesis will fulfill the requirements for graduation as St. Petersburg Campus Honors Program students.
IDS 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. Course is taken for 2 semesters.

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

IDS 2688 Social Science Perspectives II -SS (3) AS IAS
Approaches the study of human behavior and society using the lenses 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 into and understood in the present, rather than a comprehensive survey of a limited time or place.

IDS 2667 Historical Perspectives II -HP (3) AS IAS
Approaches the study of human history through a series of specific exercises that focus on what historians do: produce histories. The primary focus of the course is to understand the variety of ways that the past can be 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
An 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 3252 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. Inferences of diversity, new technologies and community and public arts will be explored. This course will introduce students to the role the arts play in shaping their perceptions of the world as well as reflecting the underlying values and paradigms that form our culture(s).

IDS 3663 Critical Issues Affecting the Arts -MW (3) VP FAI
PR: Junior standing or C1. A discussion-based examination of cultural trends, educational policies, governmental regulations, and financial factors which impact Art, Dance, Music, and Theatre.

IDS 3668 Writing Culture: Images of Culture in the Modern World (3) AS IAS
Offers multiple perspectives on the visions, theories, and practices of the modern culture through the use of various literary genres. Examines the cultural realities of social stratification, relational networks, fragmentation, discontinuity, diversity, poverty, and economic, political, and social change.

IDS 3949 Cooperative Education (0) US COE
60 hours of academic credit, acceptance in Cooperative Education Program. S/U only.

IDS 4910 Community Research (1-4) AS CEL
PR: CEL Program approval. Repeatable up to 8 credit hours. To provide students with a community 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 DEA
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: CEL Program approval. Repeatable up to 8 credit hours. To provide students with an international community research experience.

IDS 4956 International Community Internship (1-4) AS CEL
PR: CEL Program approval. To provide students with an international community internship experience. Repeatable up to 6 credit hours.

IDS 4990 BIS Inter-Area Studies (30) AS BIS
PR: ISS 4909, ISS 4939, ISC 4909, ISC 4939, HUM 4909, HUM 4939. S/U only.

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
An introduction to the relationship between politics and economics, emphasizing the analysis of government policies in 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, emphasis on major goals, 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 3955 Overseas Study (1-6) AS INT
A program of individual or group research in a foreign country.

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

INR 4083 Conflict In The World -MW (3) AS INT
PR: Junior/Senior standing. An interdisciplinary course examining theories of conflict, conflict resolution processes and strategies, theories and peacemaking strategies, and the concept of Early Warning Systems relevant at all levels of conflict.

INR 4250 Political Economy of the Southern Nations -SS AF (3) AS INT
A multidisciplinary study of the efforts of the nations in the South (Africa, Asia, Latin America and the Middle East) to improve their status through political and economic development.
ISN 4524 Africa in World Affairs -MW (3) AS POL
An examination of Africa’s place 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.

ISN 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.

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

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

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

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

ISN 4936 Senior Seminar -MW (3) AS INT
PR: International Relations major and senior standing. A variable topics seminar integrating concepts and analyses relating to the academic background of INT majors. Should be taken in the student’s final semester.

ISN 4943 International and 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.

ISN 5056 Issues in International Relations (3) AS POL
Sr./GS. Explores specific topics and provides the student with an opportunity for in-depth study of historical and contemporary problems in international politics.

ISC 1004 Integrated Natural Sciences I: Science that Matters -NS (3) AS CHM
Discussion of integrative concepts in biology, chemistry, geology, and physics based on major knowledge strands of the Florida and Natural Science Education Standards. This course deals with current topics relevant to students, is inquiry based, and emphasizes development of higher order (critical thinking) skills through active learning strategies.

ISC 1005 Integrated Natural Sciences II: Science that Matters -NS (3) AS CHM
Discussion of integrative concepts in biology, chemistry, geology, and physics based on major knowledge strands of the Florida and Natural Science Education Standards. This course deals with current topics relevant to students, is inquiry based, and emphasizes development of higher order (critical thinking) skills through active learning strategies.

ISC 4909 BIS Natural Sciences, Independent Study (15) AS BIS
S/U only.

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

ISM 3011 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 CR: ISM 3232, 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 systems.

ISM 3232 Business Application Development (3) BA QMB
PR: ISM 3011 with a grade of “C” or better (not C-). Presentation of business application development using a modern programming language. Topics include data structures, indexing, file processing, and user interfaces. Good program design techniques are emphasized. Business applications are developed.

ISM 3451 Management Science/Operations Management Applications (3) BA QMB
PR: MAC 2233 or MAC 2243. 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 3112, with grades of “C” or better (not C-). This course builds previous class and/or work experience in systems development, with particular emphasis on the use of an integrated CASE tool on a team project. Students will gain an understanding of systems development problems and approaches, using a variety of methods, such as, lectures, discussion, team presentations, guest speakers, demonstrations and computer exercises.

ISM 4141 Web Application Development/Java (3) BA QMB
PR: ISM 3323 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-). Study of database design, management for mainframe, micro, and client/server environments; including data modeling, physical vs. logical representation and back-up and recovery management.

ISM 4213 Advanced Database Administration (3) BA QMB
PR: ISM 3113, ISM 4212, with grades of “C” or better (not C-). Essential concepts of database administration in a business environment are covered in order to prepare students to understand and deal with database administration issues and concepts. Students gain hands-on experience by administering a database environment and completing assignments that involve resource management, data administration, security, backup, recovery and database tuning issues.

ISM 4220 Business Data Communication (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 3323 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 3323 with a grade of “C” or better (not C-). This course presents an object-oriented approach to software development of business information systems. Students will learn to create object models of the business world and to develop information 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 3323 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 organizations and challenges in building information systems to enable global operations.

ISM 4400 Decision Support Systems (3) BA QMB
PR: FIN 3403, QMB 3200, ISM 3011, with a grade of “C” or better (not C-). Study of operational analysis tools and their use in organizational decision making. Emphasis on a structured approach to making common business decisions, demonstrating several forms of mathematical modeling and other management science techniques.

ISM 4480 Electronic Commerce Systems (3) BA QMB
PR: ISM 3011 with a grade of “C” or better (not C-). MIS major or CC. This course is designed to familiarize students with the opportunities and challenges associated with electronic commerce, to explore the underlying technologies used in
implementing electronic commerce systems, and to develop the practical skills needed to design and develop effective Web pages.

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

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

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

**ISS 1101 Knowledge and Society -SS (3) AS ISS**  
CO: ISS 1103. Course introduces students to issues concerning the relationship between knowledge and society. Among the issues addressed are competing accounts of knowledge and the relationship between knowledge and other forms of human experience and different aspects of social life such as religion, morality, aesthetics, politics, and gender.

**ISS 1102 Self and Society -SS (3) AS ISS**  
CO: ISS 1103. Course introduces students to issues concerning the relationship between the self (or individual) and society. Among the topics that may be addressed are the idea of human nature, how human nature is shaped by social and cultural factors; the moral obligations between individuals and society; and how our understanding of the self is shaped by gender and culture.

**ISS 1103 Nature and Culture -SS (3) AS ISS**  
This course examines competing ideas and theories concerning the relationship between nature and culture. Among the issues and questions examined are the relationship between nature and our awareness of it; to what extent is nature transformable; should “nature” dictate the shape of social institutions; how does technology affect our society and environment.

**ISS 3010 Introduction to Inter-Social Science (3) AS ISS**  
Integrates the range of social science fields into a global interdisciplinary perspective. Views social institutions and issues from perspectives of changing paradigms.

**ISS 3930 Selected Topics in the Social Sciences (1-4) AS ISS**  
Interdisciplinary studies of varying topics, with course content dependent on student demand and instructor's interest.

**ISS 4151 Native American Women (3) AS ISS**  
An interdisciplinary examination of 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**  
S/U only.

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

**ISS 4930 Seminar in the Social Sciences -MW (3) AS ISS**  
Senior standing and ISS 3010 or CI. The seminar which caps the interdisciplinary major. Weds personal curiosity with the application of theoretical models to research on salient social issues.

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

**ISS 5934 Selected Topics** (1-3) AS AFA  
PR: CI plus senior standing or graduate status. Interdisciplinary studies with course content dependent on student demand and instructor's interest.

**ITA 1120 Beginning Italian I** (4) AS WLE  
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 1120L. 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 Laboratory** (1) AS WLE  
CR: ITA 1121L. A laboratory designed to offer additional practice using various instructional technologies and media.

**ITA 2200 Intermediate Italian I** (3) AS WLE  
PR: ITA 1121 or equivalent. Readings in Italian on the elementary level. A review of the basic structure of spoken and written Italian.

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

**ITA 2241 Italian Conversation II** (4) AS WLE  
To assist students who have already made a start in speaking Italian, who have not had the advantages of travel or who have non-Italian speaking parents, to improve their skill in speaking Italian. Current events; current discussion; 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. Concentrates on stylistic writing.

**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 the 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, gathering, and newswriting techniques for various media. Typing ability is required.

**JOU 3101 Advanced Reporting** (3) AS COM  
PR: JOU 2100 or RTV 3301 (RTV majors only). JOU 4200 may be taken concurrently. PHY 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 3300 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 3306 Critical Writing: Editorials, Reviews, Columns (3) AS COM**  
PR: JOU 3101 and JOU 4200. Interpretive and opinion writing for the mass media. Analysis and discussion of current events as a basis for critical thinking and editorial writing. Evaluation of editorial pages of leading newspapers. Study of journalistic techniques involved in writing reviews and personal columns.

**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 newspaper editor. Periodic oral reports to the faculty member coordinating the study.

**JOU 4104 Public Affairs Reporting** (3) AS COM  
PR: JOU 3101 or RTV 3301 (RTV majors only). POS 2041 and POS 2112 or POS 3142. Covering city council meetings, courthouse, city hall, courts, society, and other special assignments. Emphasis 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 or CI. Theoretical and practical applications of newspaper and news publication design, including typography, graphics, graphics software and electronic picture editing. Exercises in design for newspapers and news publications in both print and electronic media.

**JOU 4212 Magazine Design and Production** (3) AS COM  

**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 practitioner. Periodic written and oral reports to the faculty member coordinating the study.

JOU 5105 Newswriting and Editing (3) AS COM
PR: GS in Mass Communications or CI. Introduction to the basics of gathering, writing, and editing the news, with an emphasis on practical assignments done under professional conditions and standards. Emphasis on accuracy, thoroughness, clarity, and organization. S/U only. Permits study options concurrent with the development and improvement of writing and reading skills.

JOU 5305 Explorations in Newswriting (3) AS COM
PR: CC. Students work to develop writing styles, reporting on and creating stories about significant issues, events, and ideas. The course explores the notion that narrative-style journalism can be 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 some composition.

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

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

JPN 1121L Modern Japanese II Laboratory (1) AS WLE
CR: JPN 1121. 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 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
PR: JPN 2200 or equivalent. Continuation of JPN 2200.

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

JPN 4930 Selected Topics (1-5) AS WLE
Departmental approval required. Course permits study options in Japanese not available in the regularly scheduled curriculum at departmental discretion.

LAE 4314 Language Arts in Childhood Education (3) ED EDE
PR: Admission to the College of Education. Implementing a coordinated and integrated language arts curriculum and guiding the developmental language experiences of children in elementary school. Explores the content, organization, and instruction of oral and written expression in Childhood Education.

LAE 4323 Methods of Teaching English: Middle School (3) ED EDE
Must be taken one or two semesters prior to internship. Recommended to be taken with LAE 4464. Whole language methods of integrating reading, writing, speaking, listening, viewing, and critical thinking activities into a literature-based program for middle school students.

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

LAE 4416 Teaching Literature and Writing in the Elementary Grades -6A LW (3) ED EDE
PR: Elementary Education major. This course is designed to provide students with the skills necessary to implement a coordinated literature program and an integrated writing curriculum. Not repeatable for credit.

LAE 4464 Adolescent Literature for Middle and Secondary Students -6A LW (3) ED EDE
PR: English Education majors or CI. Recommended to be taken with LAE 4323 two semesters prior to internship. A study of the types of literature read by adolescents with an emphasis on the criteria for the choice of books and knowledge of available books and teaching materials.

LAE 4469 Teaching World Literature to Middle and Secondary Students (3) ED EDE
World literature encompasses more than Western European literature. This course is designed to emphasize, but is not limited to, the study of Eastern literature. This course fulfills the world literature course requirement for teacher certification in English.

LAE 4518 Methods of Teaching English: Practicum (3) ED EDE
PR: Senior standing or enrollment in Plan II Master’s Program. CR: LAE 4323 or LAE 4335. Taken one semester, spring or fall, prior to internship.

LAE 4536 Senior Seminar in English Education (2) ED EDE
PR: Senior standing. Required concurrently with internship. Synthesis of teacher candidate’s courses in complete college program.

LAE 4540 Internship: English Education (1-12) ED EDE
S/U only. One full semester of internship in a public or private school. Intern takes Senior Seminar in English Education concurrently. In special programs where the intern experience is distributed over two or more semesters, student will be registered for credit which accumulates from 9 to 12 semester hours.

LAE 5932 Selected Topics in the Teaching of English (3) ED EDE
PR: Certification in English and/or Mass Communications and approval of graduate advisor. Investigation of topics which are of special interest to the student and are related to the teaching of English in the secondary school. Topics will be selected by the student in accordance with his particular goals and will be approved by the student’s graduate advisor.

LAH 2020 Latin American Civilization -HP AF (3) AS HTY
An introduction to selected issues, events, and people in Latin American history from 1492 to the present. Focus on Argentina, Brazil, Chile, Cuba, and Mexico. Intended for students in any discipline; no prerequisites. An entry-level course for Latin American studies.

LAH 204 Latin American History in Film -HP AF (3) AS HTY
Through the use of films and readings, the course introduces the broad sweep of Latin American history from the pre-Columbian period to today. Emphasis is placed on the social-cultural context to understand the peoples and events that have shaped Latin America.

LAH 3130 Colonial Latin America (4) AS HTY
A study of the Spanish and Portuguese Colonial empires in the New World from 1492-1820.

LAH 3200 Modern Latin America (4) AS HTY
A study of the emergence of the Latin American states. The course will examine developments in Latin America during the nineteenth and twentieth centuries. Special attention is given to the Third World character of the region.

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

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

LAH 3480 History of Cuba (4) AS HTY
Cuban history from pre-Columbian cultures to the Cuban Revolution. Emphasis on colonization, the sugar economy, the struggles for independence, the political economy of the Republic, and the 20th century revolutionary process.

LAS 3002 Latin America (3) AS INT
Area study courses are multi-disciplinary in nature and deal with one or more countries of a region. Each course combines some measure of political, economic, historical, religious, geographic, anthropological, and sociological analysis in dealing with salient features and current problems.

LAS 3004 The Americas - Latin and Caribbean (3) AS INT
This is a telecourse that is designed to introduce the complexities of Latin America and the Caribbean to students in the U.S. (Open University - televised course.)

LAS 3116 Latin America Through Film -AF (3) AS INT
This course will use film, video, selected readings, and lectures to teach the interested student about Latin America.
LIS 1120 Beginning Latin I (4) AS WLE
An introductory course in Latin grammar with appropriate readings.

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

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

LIN 3010 Introduction to Linguistics (3) AS WLE
Introduction to the basic principles of linguistic science; phonological and grammatical analysis and description; language change and genetic relationships.

LIN 3670 English Grammar and Usage (3) AS ENG
A course in the basics of traditional English grammar designed as a complement to our composition and creative writing courses, as a review for those students who will take preprofessional exams, and as a basic course for students interested in improving their knowledge of English. Will not be counted toward the English major.

LIN 3801 Language and Meaning -6A (3) AS WLE
A survey introduction for non-specialists to the basic principles of semantics and the way language conveys ideas. This course is also available on WUSF/TV Channel 16 by the O.U. Program.

LIN 4040 Descriptive Linguistics (3) AS WLE
PR: LIN 3010 or CI. Introduction to the basic techniques of formalizing linguistic descriptions; through elementary phonological, morphological, and syntactic data solution-problems drawn from a variety of languages. Both taxonomic and generative analysis and descriptions will be developed and compared.

LIN 4575 Language and Communication: Acquisition and Development (3) AS WLE
A course primarily using the sentence diagram to present a detailed analysis of the parts of speech, verb tenses, sentence functions, and other basic grammatical classifications of traditional English grammar.

LIN 4680 Structure of American English (3) AS ENG
An introductory survey of traditional, structural, and generative transformational grammars and their techniques for the analysis and description of linguistic structure in general, and contemporary American English, in particular.

LIN 4671 Traditional English Grammar (3) AS ENG
A course primarily using the sentence diagram to present a detailed analysis of the parts of speech, verb tenses, sentence functions, and other basic grammatical classifications of traditional English grammar.

LIN 4710 Language and Communication: Acquisition and Development (3) AS WLE
PR: LIN 3010. A survey of current research and theory in the processes of normal acquisition and development of language and communication in children. The acquisition and development of phonology, syntax, semantics, pragmatics, and nonverbal communication and the role of language in general cognitive development.

LIN 4903 Directed Reading (1-3) AS WLE
PR: CI. Readings in special topics.

LIN 4930 Selected Topics (1-3) AS WLE
PR: CI. Course content depends upon students' needs and instructor's interest and may range over the entire field of linguistics.

LIN 5700 Applied Linguistics (3) AS WLE
Analysis of the phonological, morphological, and syntactic features of English as a basis for linguistic application to problems of English language acquisition by non-native speakers.

LIS 2001 Library and Information Science (2) AS LIS
LIS 2002 Introduction to the Internet (3) AS LIS
LIS 2937 Selected Topics in Library/Information Science (1-3) AS LIS
LIS 3361 World Wide Web Page Design and Management (3) AS LIS

LIS 4930 Selected Topics in Information Studies (3) AS LIS
Covers a variety of topics in the field of library/information science such as emerging technologies, administration and service, and current professional issues.

LIS 5268 Microcomputer Applications Library and Information Centers (3) AS LIS
Microcomputer hardware and software for libraries and their application in library/information settings. Projects using major applications for budgets, databases, and telecommunications are undertaken.

LIS 5315 Instructional Graphics (3) AS LIS
Theoretical aspects, planning and production of instructional graphic material. The theory of graphic communications. Interpreting needs for instructional materials appropriate for given behavioral objectives.

LIS 5332 TV in Schools and Libraries (3) AS LIS
Small format video tape recordings and the utilization of open and closed broadcasts in schools and libraries.

LIS 5404 Foundations of Library and Information Science (3) AS LIS
Introduction to the study of library and information science, historical organization; specialized literature; outstanding leaders; current trends, issues, and problems; the place of the information agency in society with its contributions to that society.

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

LIT 2000 Introduction to Literature -6A HP (3) AS ENG
The nature and significance of literature in its various forms: fiction, drama, poetry, and as a basis for the techniques of reading literature for informed enjoyment. Will not be counted toward the English major.

LIT 2010 Introduction to Fiction -6A HP (3) AS ENG
A survey of the short story and novel as literary forms; approached from an historical perspective though not restricted to any historical period. Will not be counted toward the English major.

LIT 2030 Introduction to Poetry -6A HP (3) AS ENG
A survey of the poetry as literary form, approached from an historical perspective though not restricted to any historical period. Will not be counted toward the English major.

LIT 2040 Introduction to Drama -6A HP (3) AS ENG
A survey of drama as literature and theatre; approached from an historical perspective though not restricted to any historical period. Will not be counted toward the English major.

LIT 3022 Modern Short Novel -HP (3) AS ENG
A study of the novella from the nineteenth century to the present. Writers include James, Dostoevsky, Camus, Styron, Nabokov, Gardiner, Roth, Vonnegut, among others.

LIT 3043 Modern Drama -HP (3) AS ENG
A study of such modern and contemporary dramatists as Ibsen, Strindberg, Chekhov, Pirandello, Shaw, O'Neill, Pinter, Stoppard, Brecht, Beckett, and others.

LIT 3073 Contemporary Literature (3) AS ENG
An introduction to the fiction, poetry, and drama written since 1945—American, British, Continental, or Multicultural. Focus may be on one, two, or all three genres or on works from any combination of nationalities.

LIT 3101 Literature of the Western World Through the Renaissance -6A (3) AS ENG
A survey of the great works of Western Literature from its beginnings through the Renaissance, including the Bible, Homer, Sophocles, Plato, Euripides, Virgil, Cicero, Dante, Petrarch, Machiavelli, and Rabelais, among others.

LIT 3102 Literature of the Western World Since the Renaissance -6A (3) AS ENG
A survey of the great works of Western Literature from the Neoclassic to the Modern Period, including such writers as Moliere, Racine, Voltaire, Dostoevsky, Chekhov, Ibsen, Kafka, Gide, Sartre, and Camus, among others.

LIT 3103 Great Literature of the World -6A MW LW (3) AS ENG
A survey of world literature including samples from the ancient and modern era, western and eastern traditions, male and female writers, and various ethnic cultures. Focus on values/ethics, race, ethnicity, and gender; thinking and writing skills. Will not be counted toward the English major.

LIT 3144 Modern European Novel -6A HP (3) AS ENG
A study of the Modern European novel in translation as it developed from the nineteenth century to the present, including such writers as Dostoevsky, Flaubert, Kafka, Hesse, Camus, and Solzhenitsyn.
LIT 3155 Modern Literature -6A MW LW (3) AS ENG
Examines major literary works of the 20th Century and explores ways in which authors have expressed the age, its great issues and conflicts, in order to gain an historical perspective that will help relate the present to the recent past. Will not be counted toward the English major.

LIT 3301 Cultural Studies and the Popular Arts -6A MW LW (3) AS ENG
A study of twentieth century culture as it is represented in the film, fiction, and other cultural artifacts of many different nationalities. Focuses on values/ethics, race, ethnicity and gender; thinking and writing skills. Will not be counted toward the English major.

LIT 3374 The Bible As Literature -MW (3) AS ENG
May emphasize specific literary types, literary personalities of the Old and New Testaments, and Biblical archetypes of British and American literary classics. Fall Semester, Old Testament; Spring Semester, New Testament. Focuses on values/ethics, race, ethnicity and gender; thinking and writing skills. May be taken twice for credit with different topics. May be counted once toward the English major.

LIT 3383 The Image of Women in Literature -6A MW LW (3) AS ENG
A study that seeks to trace the origins of contemporary views about women, to analyze major Western/Eastern literary portrayals 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 Religious and Existential Themes (3) AS ENG
Theological and philosophical ideas, allusions, and symbols in the writings of Dostoevsky, Nietzsche, Mann, Joyce, Eliot, Camus, Sartre, among others.

LIT 3451 Literature and the Occult -6A MW LW (3) AS ENG
An introduction to the occult tradition as a major ingredient in English, Continental, American, and Multicultural literature; analysis of the original, classification, and areas of the various magic arts from classical times through the present. Focuses on values/ethics, race/ethnicity and gender; thinking and writing skills. Will not be counted toward the English major.

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

LIT 4386 British and American Literature by Women -6A MW LW (3) AS ENG
Survey of women’s literary tradition in England and America from the seventeenth century to the present. Theme selection includes self, marriage, sexuality, madness, race and generations. Writing intensive. Will not be counted toward the English major.

LIT 4804 Literature as Cultural Study -MW (3) AS ENG
The study of literary texts as cultural artifacts. Literary texts as historical, social, psychological, religious, etc. documents. Topics and works vary. Will not be counted toward the English major.

LIT 4910 Selected Topics in English Studies (3) AS ENG
The content of this course 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.

LNN 4381 Livy (4) AS WLE
PR: Basic knowledge of Latin. Readings in the ideas and artistry of this Roman historian.

LNN 4634 Catullus (4) AS WLE
PR: Basic knowledge of Latin. Readings in Catullus. Study of techniques and tradition in Roman lyric poetry.

LNN 4644 Cicero (4) AS WLE
PR: Basic knowledge of Latin. Readings in the epistles of Cicero.

LNN 4654 Horace (4) AS WLE
PR: Basic knowledge of Latin. Readings in the Odes and Epodes of Horace. Study of the Ode’s tradition.

LNN 4670 Ovid (4) AS WLE
PR: LAT 1121 or equivalent. Readings in Ovid’s Metamorphoses. Study of Ovid’s technique, style, and artistry.

LNN 4900 Directed Analysis I -4A AS WLE
Departmental approval required.

LNN 4930 Selected Topics (4) AS WLE
Study of an author, movement, or theme.

LNN 5930 Directed Analysis II -4A AS WLE
Departmental approval required. S/U.

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

MAA 4212 Intermediate Analysis II -6A (3) AS MTH
PR: MAA 4211. Riemann-Stieltjes integration, uniform convergence, and related topics.

MAA 4402 Complex Variables -6A (3) AS MTH
PR: MAP 2303 or CI. No credit for students with credit in MAA 5402. Complex numbers, Cauchy-Riemann equations, analytic and conformal functions, power series, Cauchy Theorem, Cauchy Integral Formula, residue theory.

MAA 5306 Real Analysis I (3) AS MTH
PR: MAA 5402. Riemann-Stieltjes integrals, uniform convergence, Fourier series, Lebesgue measure and integration on R.

MMA 5307 Real Analysis II (3) AS MTH

MMA 5405 Applied Complex Analysis (3) AS MTH
PR: CI. Complex numbers, analytic and harmonic functions. Series. Contour integrals, residue theory. Conformal mappings. (A survey course emphasizing techniques and applications.)
MAC 2282 Engineering Calculus II -6A QM (4) AS MTH  
PR: C (2.0) or better in MAC 2281. No credit for students with credit in MAC 2244 or MAC 2312. Definite integral, trigonometric functions, log, exponential, series, applications.

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

MAC 2311 Calculus I -6A QM (4) AS MTH  
PR: C (2.0) or better in MAC 1144 and C (2.0) or better in MAC 1140, or C (2.0) or better in MAC 1147, or 650 or better SAT Math score, or 29 or better ACT Math score, or 90 or better College-Level Math CPT score, and knowledge of trigonometry. No credit for students with credit in MAC 2233, MAC 2241, or MAC 2281. Differentiation, limits, differentials, extremes, indefinite integral. No credit for students with credit in MAC 2233 or MAC 2243 or MAC 2311.

MAC 2312 Calculus II -6A QM (4) AS MTH  
PR: C (2.0) or better in MAC 2311 or CC. No credit for students with credit in MAC 2242 or MAC 2282. Antiderivatives, the definite integral, applications, series, log, exponential and trig functions.

MAC 2313 Calculus III -6A (4) AS MTH  
PR: C (2.0) or better in MAC 2312 or CC. No credit for students with credit in MAC 2283 or MAC 2311. No credit for Mathematics majors. An introduction to some of the aspects of discrete mathematics that are fundamental to digital computing. Topics include sets, numbers, algorithms, Boolean algebra, computer arithmetic, elementary combinatorics and an introduction to graph theory.

MAD 4011 Numerical Analysis -6A (3) AS MTH  
PR: MAP 2302 and MAD 3105. Interpolation and quadrature, finite differences, numerical solution of algebraic and transcendental equations, numerical solution of differential equations, computer techniques.

MAD 4504 Theory of Computation -6A (4) AS MTH  
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.

MAD 4653 Technology for Teaching Secondary School Mathematics II (3) ED EDO  
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.

MAD 4652 Technology for Teaching Secondary School Mathematics I (3) ED EDO  
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.

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

MAE 4936 Senior Seminar in Mathematics Education (2) ED EDO  

MAE 4940 Internship: Mathematics Education (1-12) ED EDO  
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, rings, field concepts as they relate to high school algebra and geometry.

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

MAN 3025 Principles of Management (3) BA MAN  
PR: Junior standing. Examines intrapersonal, interpersonal, group, team, organizational, and environmental (both stakeholder and societal) factors influencing the management system.

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  
PR: 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 employees in private organizations and public employment.

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

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

MAN 4280 Organizational Development and Change (3) BA MAN  
PR: MAN 3240 or CI. A lab course where students experimentally apply behavioral science techniques in an "action-research" framework to the cycle of planned change so as to build a more effective organization.

MAN 4282 Organizational Assessment (3) BA MAN  
PR: MAN 3240. The analysis and measurement of factors which influence organizational effectiveness and the quality of work life. Dynamic-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 4504 Operations Management: A Systems Approach (3) BA QMB
PR: ISM 3431 or equivalent. Studies the problems of “operations” in all types of enterprises in both the public and private sectors. Emphasis is placed on the application of various decision science methodologies to problem situations.

MAN 4507 Operation Production Systems (3) BA QMB
PR: MAN 4504 or CI. Study of closed loop production planning and control systems. Master production planning, inventory management, materials requirements planning, capacity, management, production activity. Relationship to organizational effectiveness.

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) BAMA 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 determination of the management of the firm and determination of the feasibility of a business 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 2313. First order linear and nonlinear equations, higher order equations, applications.

MAP 5316 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 5317 Ordinary Differential Equations II (3) AS MTH
PR: MAP 5316 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: MAP 5407 or CI. Separation 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. Sturm-Liouville theory, Fourier series, Green’s functions, matrix methods for linear systems of ordinary differential equations, and topics from calculus of variations, control theory, numerical solutions of differential equations.

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 chairperson.

MAR 3023 Basic Marketing (3) BA MKT
PR: ACG 2021, ECO 2013, ECO 2023, or CI. Survey of the marketing concept 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. Sales careers are examined.

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

MAR 3823 Marketing Management (3) BA MKT
PR: MAR 3023. An applications oriented study of the marketing function at an intermediate level. Emphasis upon techniques for analyzing 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 institutions, principles and methods involved in the solution of these business problems as well as the effects of national differences on business practices and buyer behavior.

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

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

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

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

MAR 4453 Business to Business Marketing (3) BA MKT
PR: MAR 3023. A study of the marketing of goods and services to the industrial and institutional sectors. Includes characteristics of the markets and channels of distribution, sales, 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 behavior, 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 3623, MAR 3613, and two other 3000 or 4000 level marketing courses, or CI. The integration of marketing knowledge applied to decision roles in managing the total marketing effort of firms, and coordination with other major functional areas on specific problems.

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 determined by the student and instructor.

MAR 4905 Independent Study (1-3) BA MKT
PR: CI. S/U only. Specialized independent study determined by the students’ needs and interests.

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

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

MAS 4124 Numerical Linear Algebra -6A (3) AS MTH
PR: MAS 3105. This course will consider efficient and stable numerical methods for dealing with matrix computations such as the solution of systems, calculation eigenvalues and vectors, least squares, and so on.

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 or Euclidean space, exterior calculus of differential forms, differentiation of vector fields, line and surface integrals, Stokes' Theorem, elementary continuous groups.

MAS 4214 Elementary Number Theory -6A (5) AS MTH
PR: MAC 2312. No credit towards Mathematics majors. Divisibility, prime numbers, Fundamental Theorem of Arithmetic, Diophantine equations, the algebra of congruencies, number functions and other selected topics.

MAS 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.

MAS 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, Mersenne primes, perfect numbers, Euler-Fermat theorem, pseudoprimes, primitive roots, law of quadratic reciprocity, factorization and primality testing algorithms.

MAS 5311 Algebra I (3) AS MTH
PR: MAS 3105 and MAS 4301 or CI. Group theory: Sylow theorems; classification of groups of small order. Ring theory: ideals, quotient rings, polynomial rings, Euclidean domains, principal ideal domains and unique factorization.

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

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

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

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 5932 Selected Topics -1-4 AS MTH
PR: CI. Each course covers a single topic outside the usual curriculum.

MGB 3030C General Microbiology (4) AS BIO
PR: BSC 2010, BSC 2010L, BSC 2111, BSC 2111L, and CHM 2210. General microbiology is recommended. Introduction to the biology of microorganisms: structure, physiology, and ecology of bacteria, algae, viruses, protozoa and lower fungi. The laboratory involves preparation of culture media, staining, pure culture methodology, isolation of microbes from nature, enumeration techniques, resistance to infectious disease. Lab-lec.

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

MGB 4404 Microbial Physiology and Genetics (4) AS BIO
PR: MCB 3030C 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.

MGB 4404L Microbial Physiology and Genetics Laboratory (1) AS BIO
CR: MCB 4404C. Laboratory portion of Microbial Physiology and Genetics. Laboratory exercises relating to biochemical characteristics and metabolic capabilities of bacteria.

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

MGB 4910 Microbiology Undergraduate Research (1-4) AS BIO
PR: CC. For B.S. Microbiology majors only. S/U only. Individual investigation with faculty supervision.

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

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

MGB 5501 Applied and Environmental Biology (3) AS BIO
PR: MCB 3030C. A study of the applications of microbiology to the food/beverage industry, agriculture, public health and bioremediation. This course is a microbiology elective and has a mandatory field trip component.

MGB 5815 Medical Mycology (3) AS BIO
PR: MCB 3030C or CI. A modern biological survey of the medically important fungi (yeasts and molds) important to the student's role as a microbe specialist and environmental scientist.

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 earth's atmosphere. Surface and upper level atmospheric circulation 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.

MET 4532C Tropical Meteorology (4) AS GPY
PR: GEO 3013 or CI. An introductory survey of climatology. A qualitative study of the dynamics and general circulation of the earth's atmosphere. Surface and upper level atmospheric circulation, hurricane climatology, the El Nino and Southern Oscillation phenomenon, thunderstorms and lightning, satellite remote sensing, monsoons, sea-breeze convergence and Florida climate, surface energy exchange, land use change and its impact on tropical climates, 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 19 or better ACT Math Score, or 72 or better Elementary Algebra CPT 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 presented in their historical context and their impact on the history 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 19 or better ACT Math Score, or 72 or better Elementary Algebra CPT score. Computer experiments in the behavior of
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 and functions, 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 theory and decidability.
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) ED EDG
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 their career and educational goals in context.
MHS 4010 Human Information Skills in Health Professions - 4E EDG
Introduction to the theory of human relations dynamics and development of skills required for effective interpersonal relations. Lecture sessions and experiential training.
MHS 4905 Independent Study: Guidance and Counseling Education (1-4) ED EDG
PR: DPR, SI only. Specialized independent study determined by the student’s needs and interests.
MIS 1000C Organization of the Army and ROTC - (2) US MIS
Make your first new peer group at college committed to performing well and enjoying the experience. Increase self-confidence through team study and activities in basic drill, physical fitness, rappelling, first aid, and making presentations. Learn fundamentals of leadership.
MIS 1400C Fundamentals of Leadership Development (2) US MIS
Reinforce self-confidence through participation in physically and mentally challenging exercises. Develop communication skills. Relate organizational ethical values to the effectiveness of a leader.
MIS 2000 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. Registrable for 8 semesters, but only 4 credit hours will be counted toward the program.
MIS 2601C Military Training Management And Instructional Techniques - (2) US MIS
Learn/apply ethics-based leadership skills that develop individual abilities and contribute to the building of effective teams. Develop skills in oral presentations, writing, planning, coordination of group efforts, fundamentals of ROTC’s Leadership Development Program.
MIS 2610C Leadership Assessment - (2) US MIS
Introduction to individual and team aspects of military tactics in small unit operations, radio communications, making safety assessments, movement techniques, safety/ security and methods of pre-execution checks. Learn techniques for training others as an aspect of continued leadership development.
MIS 2630 Basic Leader Training - (4) US MIS
PR: CI. A 35 day internship at Fort Knox, Kentucky that incorporates a wide range of military subjects designed to develop/evaluate leadership and officer potential. The course is intentionally stressful and designed to build individual leadership through the accomplishment of tough and demanding training. Students completing the course may qualify for entry into the ROTC Advanced Course.
MIS 3302C Small Unit Operations - (3) US MIS
Series of practical opportunities to lead small groups, receive personal assessments and encouragement, and lead again in situations of increasing complexity. Uses small unit operations and opportunities to plan and conduct training for lower division students both to develop such skills and practicing leading.

MIS 3404C Leadership Fundamentals - Tactics And Camp Preparation - (3) US MIS
Analyze tasks; prepare written or oral guidance for team members to accomplish tasks. Delegate tasks and supervise. Plan for and adapt to the unexpected organizations under stress. Examine and apply lessons from leadership case studies. Examine importance of ethical performance.
MIS 4410C Army as a Profession - (3) US MIS
Designed to prepare cadets for duty as commissioned officers. Instruction centers around proficiency/familiarization with the military justice system, military administration, the Officer Professional Management System, international laws of war, and principles of management/leadership.
MIS 4412C Seminar In Military Leadership & Management - (3) US MIS
Provides a basic understanding of the professional soldier’s responsibilities to the Army and the nation. Attempts to improve ethical decision-making skills through an examination of the need for ethical conduct, greater awareness and sensitivity to ethical issues, and the opportunity to apply these abilities in real world case study situations. Included are seminars to acquaint the new lieutenant with his/her relationship to NCOs, company grade officers, and senior officers.
MIS 4930 Advanced Directed Study And Research - (1-3) US MIS
PR: CI and permission of Professor of Military Science. Intensive individual study in a particular aspect of military science that is not covered in regular course offerings. Request for enrollment must be made prior to registration in the form of a written proposal.
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, spinal, 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 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 4863 Clinical Microbiology - (6) AS IAS
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course emphasizing pathogens responsible for diseases in man, including morphology, physiology, and laboratory diagnosis of bacteria, fungi, parasites, and viruses.
MLS 4864 Clinical Chemistry - (6) AS IAS
PR: Senior standing and acceptance into an approved affiliated hospital. A hospital clinical course on the analysis of chemical substances found in the body as related to the diagnosis of 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 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: A 2.7 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.
### MUC 3401 Electronic Music-Analog Synthesis I (3) VP MUS
- PR: MUC 2301 and DPR. A composition lab for original composition for conventional instruments, performed with analog synthesizers; sound synthesis, interfacing electronics with conventional instruments.
- Course content will change each semester.

### MUC 3402 Electronic Music-Analog Synthesis II (3) VP MUS
- PR: MUC 2301 and DPR. A composition lab for original composition for conventional instruments, performed with analog synthesizers; sound synthesis, interfacing electronics with conventional instruments.
- Course content will change each semester.

### MUC 3441 Electronic Music-Digital Synthesis I (3) VP MUS
- PR: MUC 3401 or MUC 3402 and DPR. Computer assisted composition for conventional instruments; composition for tape medium with computer controlled analog synthesizers; direct digital synthesis; digital systems design and construction.

### MUC 3442 Electronic Music-Digital Synthesis II (3) VP MUS
- PR: MUC 3401 or MUC 3402 and DPR. Computer assisted composition for conventional instruments; composition for tape medium with computer controlled analog synthesizers; direct digital synthesis; digital systems design and construction.

### MMC 4945 Media Internship-Seminar (3) AS COM
- PR: CI. Required of all composition majors. Private instruction in original composition. Required of All Jazz Studies Comp. majors, minimum six hours.
- PR: Junior standing and CI. Reading and directed study in special topics.
- PR: Junior standing and CI. Reading and directed study in special topics.
- PR: Sophomore standing, brass instrument major or MUE 2460. DPR. A study of orchestra materials, in a laboratory setting, through the study of trombone and trumpet.
- PR: Sophomore standing, woodwind instrument major or MUE 2450. DPR. A study of band materials in a laboratory setting, through the study of clarinet and flute.
- PR: Sophomore standing, non-brass major. DPR. The course introduces the fundamentals of brass wind instrument pedagogy. In addition, basic techniques of brass performance are taught through the study of trombone and trumpet.

### MUC 2221 Composition (3) VP MUS
- PR: Necessary competency at junior level determined by faculty jury. DPR. Private instruction in original composition. Required of composition majors.

### MMC 4420 Research Methods in Mass Communications (3) AS MTH
- PR: MAC 2311. No credit towards Mathematics major. Emphasis on survey research, evaluation of data, and report writing.

### MTG 4403 Electronic Music-Time Performance (3) VP MUS
- PR: MUC 3401 and/or DPR. Private instruction in original composition. Required of composition majors, a minimum of six semester hours.
- PR: Junior standing and CI. Reading and directed study in special topics.
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 Music In The Elementary School (3) VP MUS
PR: DPR. A study of principles, techniques, materials, and activities as they relate to a comprehensive music curriculum in Grades K-6.

MUE 4321 Foundations Of Choral Music (2) VP MUS
PR: Major status or DPR. This course deals with the development of knowledge and skills needed to effectively organize and teach a choral music program for elementary and intermediate grade level students. Include school observation and participation component.

MUE 4330 Classroom Music In The Secondary School (3) VP MUS
PR: DPR. Development and implementation of methods and techniques for teaching music to the student not participating in secondary school music performing groups.

MUE 4331 Choral Methods In The Secondary School (3) VP MUS

MUE 4332 Instrumental Music In The Secondary School (3) VP MUS
PR: DPR. MUE 2450, MUE 2460, MVP 1211. Junior standing.

MUE 4352 Foundations Of Instrumental Music (2) VP MUS
PR: DPR. MUE 2450, MUE 2460, MVP 1211. Junior standing.

MUE 4480 Marching Band Techniques (2) VP MUS
PR: Junior standing. DPR. This course is required of instrumental music education majors. It will provide the student with the needed skills in creating for and teaching the public school marching band.

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

MUG 3104 Basic Conducting (2) VP MUS
PR: DPR. The study and practical application of basic conducting techniques. Development of skills related to the conducting of musical scores.

MUG 4302 Instrumental Conducting (2) VP MUS
PR: MUG 3404 and DPR. A study of techniques of conducting ensemble groups. Also includes an exploration of the functional technique, score reading, terminology, rehearsal management.

MUH 2051 Folk And Traditional Music Of World Cultures - (3) VP MUS
A comparative survey of the stylistic traits and functions of the folk and traditional music, both sacred and secular, of diverse Western and non-Western cultures. For non-majors; may be taken by majors as an elective with departmental approval.

MUH 3300 Music History/Medieval And Renaissance (2) VP MUS
PR: DPR. Required of music majors; a study of the historical development of musical styles of the Medieval and Renaissance periods and the music of those periods.

MUH 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.

MUH 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.

MUH 4058 Intercultural Music In The Twentieth Century -MW (3) VP MUS
PR: MUH 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.

MUH 4801 History Of Jazz (3) VP MUS
PR: MUL 1112. DPR. A survey of representative music exemplars of the past and present with emphasis on the study of styles and form. Required for music majors.

MUL 3001 Issues In Music -FA AF (2-3) 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 illustration in performance of the abstract and aesthetic elements in music which vitally concern the artist-performer.

MUL 3012 Music In Your Life -FA (3) VP MUS
Open only to non-music majors. A study in the art of music and its materials, designed to develop an understanding of basic principles of music and techniques 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 3236 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, and piano.

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 large 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 3420 Saxophone 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 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 3424 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.
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*PR: Required.*
MUT 4571 Twentieth Century Practice (3) VP MUS
PR: MUT 2117, DPR. A study of 20th century musical concepts; development of skills in perceiving and writing music in contemporary styles through the use of aural and visual analysis.

MUT 5051 Graduate Review Of Music Theory (2) VP MUS
PR: DPR. An advanced level review of music theoretical concepts with emphasis on the common practice period. The course serves to satisfy deficiencies in music theory and does not count toward the graduate degree requirements.

MVB 1211 Applied Trumpet (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVB 1212 Applied French Horn (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVB 1213 Applied Trombone (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVB 1214 Applied Euphonium (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVB 1215 Applied Tuba (1) VP MUS
PR: DPR. Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.

MVB 1311 Trumpet Major (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1312 French Horn Major (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1313 Trombone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1314 Euphonium Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1315 Tuba Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1411 Trumpet Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1412 French Horn Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1413 Trombone Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1414 Euphonium Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 1415 Tuba Major (3) VP MUS
PR: DPR. Required of all applied music majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 2321 Trumpet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 2322 French Horn Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 2323 Trombone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 2324 Euphonium Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVB 2325 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 2326 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 2422 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 2423 Trombone 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 2424 Euphonium 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 2425 Tuba 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 3332 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 3333 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 3334 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 3335 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 3431 Trumpet 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.
MVB 3432 French Horn 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 3433 Trombone 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 3434 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 3435 Tuba 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 4342 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 4343 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 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 4441 Trumpet 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 4442 French Horn 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 4443 Trombone 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 4444 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 4445 Tuba 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 5255 Applied Tuba (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.
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Private and class instruction. Faculty jury examination. Required of all applied music majors.
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<th>Course Code</th>
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<td>Viola Principal (2)</td>
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**PR: DPR.** Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

- **MVP 3231 Piano Principal (2)**: Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
- **MVP 3431 Piano Pedagogy I (4)**: May be elected by undergraduate music majors; emphasis on the business management of the music studio, and the musical responsibilities of the studio teacher, the techniques of private instruction.
- **MVK 3331 Piano Principal (2)**: Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
- **MVK 3431 Piano Major (3)**: Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.
- **MVK 4341 Piano Pedagogy II (4)**: May be elected by undergraduate music majors; emphasis on the business management of the music studio, and the musical responsibilities of the studio teacher, the techniques of private instruction.
- **MVK 4640 Piano Pedagogy II (4)**: 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)**: 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 Violin Major (3)**: 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 1514 Double Bass Major (2)**: 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.

**PR: DPR.** Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

- **MVP 3231 Percussion Principal (2)**: Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
- **MVP 3431 Percussion Major (3)**: Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

- **MVP 3441 Percussion Principal (2)**: Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
- **MVP 4441 Percussion Major (3)**: Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.
- **MVP 1211 Applied Violin (1)**: Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.
- **MVP 1212 Applied Viola (1)**: Necessary competency determined by faculty jury examination. 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.
- **MVP 1311 Applied Double Bass (1)**: Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.
- **MVP 1312 Applied Viola (1)**: Necessary competency determined by faculty jury examination. 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.
- **MVP 1313 Applied Violoncello (1)**: Course is open by audition only. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of nonmusic majors who have had prior musical training.
- **MVP 1314 Double Bass Major (2)**: Necessary competency determined by faculty jury examination. Required registration in major performance ensemble. Required of all applied music majors. Private and class instruction.
- **MVP 3231 Percussion Principal (2)**: Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.
- **MVP 3431 Percussion Major (3)**: Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.
MVS 2324 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 3331 Violin 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.

MVS 3332 Viola 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.

MVS 3333 Violoncello Principal (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 3341 Violin 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.

MVS 4341 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 4342 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 4343 Violoncello 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 4441 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 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.

MVV 1211 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1212 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1213 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1214 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1215 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1216 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1217 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1218 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1219 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1221 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1222 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1223 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1224 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1225 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1226 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1227 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1228 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1229 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1231 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1232 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1233 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1234 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1235 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1236 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1237 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1238 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1239 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1241 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1242 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1243 Applied Voice (1) VP MUS  
Private and class instruction.

MVV 1244 Applied Voice (1) VP MUS  
Private and class instruction.
MVW 5251 Applied Voice (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 1411 Flute Major (3) 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 1313 Clarinet Major (3) 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 1212 Applied Oboe (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 1425 Saxophone Major (3) 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 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. Private and class instruction.

MVW 2422 Oboe Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 2423 Clarinet Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 2424 Bassoon Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 2425 Saxophone Major (3) VP MUS
PR: DPR. Necessary competency at Sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 3331 Flute Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 3332 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 3333 Clarinet Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 3334 Bassoon Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 3335 Saxophone Principal (2) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.
MVW 3434 Bassoon Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 4442 Oboe Major (3) VP MUS
PR: DPR. Required of all music education and composition majors. Open to a limited number of non-music majors by audition only. Applied music courses are NOT available on S/U basis. Private and class instruction.

MVW 4443 Clarinet Major (3) VP MUS
PR: DPR. Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction.

MVW 4444 Bassoon 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 4445 Saxophone Principal (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.

NSC 1140 Seapower and Maritime Affairs (3) US NVY
This course deals with the importance of seapower in historical events, including emphasis on worldwide political-military confrontations following the cold war.

NSC 2121 Naval Ships Systems I (3) US NVY
This course introduces students to the role of ships in naval warfare, including the design, construction, and operation of naval vessels. Students will learn about the various systems and equipment used on modern naval vessels.

NSC 2221 Evolution of Warfare (3) US NVY
This course surveys the history of warfare, focusing on the evolution of military strategies and tactics, and the impact of technological advancements on warfare.

NSC 2231 Principles of Naval Management I (3) US NVY
This course covers the principles of naval management, focusing on the organization and leadership of naval units.

NSC 2242 Amphibious Warfare (3) US NVY
This course provides an overview of amphibious warfare, focusing on the planning, execution, and evaluation of amphibious operations.

NSC 2271 International Law for the Junior Officer (3) US NVY
This course covers the principles of international law as they apply to the military, focusing on international legal frameworks and military law.

NSC 2272 International and Inland Rules of the Road (3) US NVY
This course covers the rules of the road for ships on both international and inland waters, focusing on navigation and collision avoidance.

NSC 2273 Operations (3) US NVY
This course covers the principles of naval operations, focusing on the planning and execution of naval operations and the integration of various military branches.

NSC 2274 Strategy and Tactics (3) US NVY
This course covers the principles of strategy and tactics in naval warfare, focusing on the planning and execution of naval operations.

NUR 3064C Physical Examination and Assessment (4) NU NUR
PR: Admission to the nursing major or CI. Focus on the use of techniques and instruments necessary for the examination of infants, children, and adults. Emphasizes assessment phase of critical thinking to enable student to perform evaluations of health care needs throughout the lifespan.

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, which is essential for professional nursing practice. Emphasis on developing nurse relationships with individuals across the lifespan within the context of the family.

NUR 3114C Fundamentals of Nursing Practice and Foundations for Clinical Judgment (4) NU NUR
PR: Admission to the nursing major or CI. The fundamentals and foundations of nursing practice. Focus on developing critical thinking skills in applying concepts of health to meet the basic needs of the individual across the lifespan.

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 3064C, NUR 3125, NUR 3114C, NUR 3076. CR: NUR 3215L. Focuses on the nursing assessment, prevention, and management of selected health care problems in adults of all ages. Critical thinking is used to analyze the effects of changes in health status and impact of nursing intervention for: patients with alteration in Fluid and Electrolyte Balance, Hemotologic System, Cardiovascular System, Pulmonary System, Renal System, Endocrine, Cancer, Multisystem Dysfunction.
NUR 3215L Medical Surgical Nursing Clinical I (3) NU NUR

NUR 3284C Gerontological Nursing (2) NU NUR
PR: NUR 3113, NUR 3114, NUR 3114L, NUR 3064C. Nursing Majors. Focuses on theories of aging and human development; assessment of functional health patterns; and planning health promotion and disease prevention activities with older adults. Critical thinking is used to analyze the effects of interventions on individuals and groups.

NUR 3525 Psychiatric/Mental Health Nursing Clinical (3) NU NUR

NUR 3525L Psychiatric/Mental Health Nursing Clinical (3) NU NUR
PR: NUR 3076, NUR 3064C, NUR 3125, NUR 3114C. CR: NUR 3525L. 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 3806 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 to academic achievement.

NUR 3829 Ethical Legal Aspects in Nursing and Health Care -MW (3) NU NUR
PR: NUR 3113 or 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.

NUR 4041 Culture In Nursing Practice (2) NU NUR
PR: NUR 3113 or CI. Nursing Majors. Introduces knowledge and skills needed to give culturally congruent nursing care to people from diverse cultural groups. Compares and analyzes health-related practices, values, beliefs among major cultural groups.

NUR 4165 Nursing Inquiry (3) NU NUR
PR: Admission to the nursing major or CI. An introductory course in statistics is recommended. Focus on developing analytical research skills and understanding the role of the nurse in evidence-based practice.

NUR 4194 An Interdisciplinary Perspective in HIV Disease -6A MW LW (3) NU NUR
Provides an interdisciplinary perspective on HIV disease. Topics include the etiology, spectrum, and treatment of HIV disease; international perspectives; issues of race, gender, and ethnicity; values, ethics, and their influences on responses to HIV; and how the media has shaped the epidemic.

NUR 4216 Medical Surgical Nursing II (4) NU NUR
PR: NUR 3215, NUR 3215L, NUR 3145. CR: NUR4216L. Focus on the nursing assessment, prevention, and management of multiple health care problems. Critical thinking is used to analyze the effects of changes in health status and the impact of nursing intervention for patients with alterations in Visual and Auditory systems, Neurological systems, Musculoskeletal systems, Gastrointestinal systems, and Reproductive systems.

NUR 4216L Medical Surgical Nursing Clinical II (5) NU NUR

NUR 4355 Child and Adolescent Health Nursing (3) NU NUR

NUR 4421 Women's Health Nursing (2) NU NUR
PR: NUR 4216, NUR 4216L. CR: NUR 4635L, NUR 4636, NUR 4355. Focus on health promotion, identification of risk factors, illness care, and health restoration related to the physiological and psychological changes occurring during a woman's life cycle.

NUR 4635L Integrated Nursing Clinical: Community/Public Health, Children and Adolescent Health, and Women's Health (7) NU NUR
PR: NUR 4216, NUR 4216L. CR: NUR4421, NUR 4636, NUR 4355. Provides clinical learning experiences in diverse community and hospital settings. Focuses on nursing care designed to prevent and/or reduce risk of disease and injury, promote health and wellness, and treat illness and injury in children, adolescents, adults and families, and diverse community populations across the age spectrum.

NUR 4636 Community/Public Health: Population-Focused Nursing (3) NU NUR
PR: NUR 4216, NUR 4216L or CI. In-depth examination of community health nursing, public health, epidemiology, culture, and environment essential to preventing illness and injury and promoting and preserving health among diverse populations at risk.

NUR 4636L Community/Public Health Nursing Clinical for the RN (3) NU NUR
CR: NUR 4636 or CI. 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, and promote health and wellness to diverse populations across the age spectrum.

NUR 4643 Nursing Interventions into the Acute Effects of Drug and Alcohol Abuse (2) NU NUR
Focuses on the assessment and treatment of individuals and families who are in the acute phases of addiction. Emphasis will be placed on treatment outcomes for designated populations with consideration for cultural, socioeconomic, political and ethical/legal factors.

NUR 4644 Nursing Interventions into the Rehabilitation of Clients who Abuse Substance (2) NU NUR
Focuses on models of treatment and interventions for clients and families who are in the rehabilitation and relapse prevention phases of treatment for addictions. Emphasis will be placed on rehabilitation outcomes for designated populations with consideration for criminal socioeconomic, political and legal/ethical factors.

NUR 4645 Substance Abuse Across the Lifespan (2) NU NUR
This course introduces the student to concepts of substance abuse and theories of addiction. The applicability of theories and concepts to clinical assessment, diagnosis and intervention with various client populations is explored.

NUR 4692 Occupational Health Nursing (2) NU NUR
Focuses on the historical, 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 businesses, social, economic, and legal forces influencing that role; standards and characteristics of practice; and settings for occupational health nursing practice.

NUR 4765C Rehabilitation Across the Life Span (2) NU NUR
PR: NUR 4616,NUR 4616L, NUR 4636, NUR 4636L. Nursing Majors or CI. Basic concepts of rehabilitation related to human responses. Analysis of the changes in health status and nursing implications.

NUR 4766 Critical Care (2) NU NUR
PR: NUR 4616, NUR 4616L, NUR 4636, NUR 4636L. Nursing Majors or CI. Basic concepts of critical care nursing, focusing on selected health problems to analyze the affects of changes in health status.

NUR 4838 Leadership and Management in Professional Nursing Practice (3) NU NUR
PR: NUR 4421, NUR 4355, NUR 4636, NUR 4636L or CI. Principles of nursing leadership and management with an emphasis on decision-making, priority setting, delegating, and managing nursing care. Focus on preparation of the professional nurse to work collaboratively in the interdisciplinary health care environment. Clinical experience for registered nurse students with pediatric and/or geriatric populations.

NUR 4905C Independent Study (1-5) NU NUR
PR: Permission of faculty. Open to majors and non-majors. Individual or group investigation of problems relevant to the health of individuals or groups. Project requirements individually planned with faculty preceptor.
### NUR 4935 Selected Topics in Nursing (2-8) NU NUR
- **PR:** Junior or senior standing or permission of faculty. Content will depend upon student demand and faculty interest and may focus on any area relevant to nursing practice. May involve class, seminar, and/or clinical laboratory.

### NUR 4948L Physical Fitness (5) NU NUR
- **PR:** NUR 4216, NUR 4216L, NUR 4355, NUR 4421, NUR 4636, NUR 4636L. Individually contracted 150 hours of clinical practice collaboratively planned by students, faculty, and agency personnel. Opportunity to synthesize theory and clinical practice for professional nursing.

### OCE 4930 Selected Topics in Marine Science (1-4) MS MSC
- **PR:** Selected topics in the marine sciences including marine biology, marine chemistry, marine geology and geophysics, physical oceanography, and interdisciplinary topics relating to marine environments.

### ORI 2000 Introduction to Communication As Performance (3) AS SPE
- **PR:** ORI 2000 or CI. The study, rehearsal, and performance of literature for Readers Theatre and Chamber Theatre productions.

### PAD 5333 Concepts and Issues in Public Planning (3) AS PAD
- **PR:** URP 4050 or URP 6056, GS or Sr. Analysis of basic concepts, issues, and strategies of planning, policy determination, collection of information, and decision-making.

### PAD 5605 Administrative Law and Regulation (3) AS PAD
- **PR:** An examination of the Constitutional and statutory base and limitations of the administrative process, administrative adjudication, rule-making, and the judicial review of such actions. An examination of the Constitutional and statutory base and limitations of the administrative process, administrative adjudication, rule-making, and the judicial review of such actions. Attention is also directed to regulatory commissions, their functions, powers, management and relationship with other branches of government.

### OCE 2001 Introduction to Oceanography -NS (3) MS MSC
- Overview of biological, chemical, geological, and physical oceanography. Also listed under Geology.

### OCE 4930 Selected Topics in Marine Science (1-4) MS MSC
- **PR:** Selected topics in the marine sciences including marine biology, marine chemistry, marine geology and geophysics, physical oceanography, and interdisciplinary topics relating to marine environments.

### ORI 3950 Communication As Performance Laboratory (1-3) AS SPE
- **PR:** ORI 2000 or CI. Critical appreciation of lyric and narrative poetry and communication of that appreciation to audience. Study of poetic theory and prosodic techniques.

### ORI 4120 Performance of Poetry (3) AS SPE
- **PR:** ORI 2000 or CI. Critical appreciation of lyric and narrative poetry and communication of that appreciation to audience. Study of poetic theory and prosodic techniques.

### ORI 4310 Group Performance of Literature (3) AS SPE
- **PR:** ORI 2000 or CI. Designed to introduce the student to and give experience in various forms of group approaches to performance.

### ORI 4931 Performance and Video (3) AS SPE
- **PR:** ORI 2000. CR: ORI 3950. This course features adaptation, direction, and performance of literature for video productions.

### ORI 5930 Topics in Performance Genres (3) AS SPE
- Variable topics course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Department</th>
<th>Edition</th>
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<tbody>
<tr>
<td>PCB 5235</td>
<td>Principles of Immunology</td>
<td>3</td>
<td>AS BIO</td>
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<tr>
<td>PCB 5415</td>
<td>Behavioral Ecology</td>
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<tr>
<td>PCB 5525</td>
<td>Molecular Genetics</td>
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<td>PCB 5845C</td>
<td>Principles of Neuroscience</td>
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<tr>
<td>PEL 1121</td>
<td>Golf I</td>
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<td>PEL 1341</td>
<td>Tennis I</td>
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<tr>
<td>PEL 2122</td>
<td>Golf II</td>
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<td>PEL 2342</td>
<td>Tennis II</td>
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<tr>
<td>PEL 2441</td>
<td>Racquetball</td>
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<td>PEM 2131</td>
<td>Weight Training</td>
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<tr>
<td>PEM 2441</td>
<td>Karate</td>
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<tr>
<td>PEM 2136</td>
<td>Skin &amp; Scuba Diving</td>
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<tr>
<td>PET 3621C</td>
<td>Prevention of Athletic Injuries</td>
<td>3</td>
<td>AS BIO</td>
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<tr>
<td>PET 3421</td>
<td>Curriculum and Instruction in Physical Education</td>
<td>3</td>
<td>AS BIO</td>
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<tr>
<td>PET 3422</td>
<td>Instructional Design and Content: Movement</td>
<td>3</td>
<td>AS BIO</td>
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<tr>
<td>PET 3441</td>
<td>Instructional Design and Content: Middle School</td>
<td>3</td>
<td>AS BIO</td>
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<tr>
<td>PET 3617C</td>
<td>Orthopaedic Physical Assessment I (Upper Extremity)</td>
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<td>PET 3618C</td>
<td>Orthopaedic Physical Assessment II (Lower Extremity)</td>
<td>3</td>
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<td>PET 3621C</td>
<td>Prevention of Athletic Injuries</td>
<td>3</td>
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**Notes:**
- PR: PCB 3032 or equivalent. S/U only.
- DPR. Activities offered are selected to reflect student interest.
- S/U only. Development and refinement of the essential skills and information necessary for enjoying the sport of Tennis.
- S/U only. Continuation of PEL 1121. Emphasis on course play and refinement of strokes.
- S/U only. Continuation of PEL 1134. Emphasis on tactics and playing strategies.
- Open to non-majors.
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 illnesses suffered by an athletic population.

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, polytomic training, isokinetic testing, stability ball training, and a variety of common exercise equipment.

PET 3640 Adapted Physical Education (3) ED EDP
Physical Education majors only. A study of characteristics, programming needs and teaching of physical education for students with disabilities.

PET 3660 Athletic Training Administration and Policy (3) ED EDP
Athletic Training majors only. Analysis and application of organizational skills and administrative structure of the athletic training profession, including current theory about budget management, medical record keeping, drug testing, facility design and maintenance, legal aspects of sports medicine, athletic physical experiences, medical ethics, current educational concepts, and administrative policy.

PET 3670L Clinical Instruction in Athletic Training I (3) ED EDP
Athletic Training majors only. Observation and performance of basic athletic training skills under the direct supervision of an NATABOC certified/state licensed athletic trainer. This course provides students with the opportunity to develop competence in a variety of introductory athletic training skills. Clinical experiences are obtained in the university’s sports medicine facilities and/or approved affiliates and will be accompanied by an 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 NATABOC certified/state licensed athletic trainer. This course provides students with the opportunity to develop competence in a variety of introductory and mid-level athletic training skills. Clinical experiences are obtained in the university’s sports medicine facilities and/or approved affiliates and will be accompanied by an one-hour seminar each week.

PET 3931 Selected Topics (1-3) ED EDJ
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 of curriculum content and methodology.

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 4142 Trends and Tasks- Secondary Physical Education (1) ED EDP
Taken concurrently with PET 4944 Physical Education Internship: Secondary. Physical Education Majors only. Current trends are evaluated from a historical and philosophical perspective. Non-teaching tasks are identified as part of the professional role. Evaluate and continue personal-professional development plan developed in previous semesters.

PET 4304 Principles and Issues in Coaching (3) ED EDP
Physical Education majors only. The application of principles from philosophy, psychology, sociology, and physiology to competitive athletics and coaching.

PET 4353 Exercise Physiology II (3) ED EDP
PR: PET 3351. A study of Exercise Physiology focusing on the adult. Includes specific populations such as the obese, heart patients, athletes, elderly, and high performance athletes. Open to non-majors.

PET 4384 Health-Fitness Appraisal & Exercise Prescription (3) ED EDP
PR: PET 3351. Techniques in conducting health-fitness test and exercise prescription for adults. Includes cardiovascular strength, flexibility, body composition, health risk testing, exercise prescribing, and monitoring. Open to non-majors.

PET 4401 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
Physical Education majors only. Design and implementation of various types of wellness programs with emphasis on assessment and evaluation, management, staffing, participant adherence, program design, budgeting, legal liability, and marketing.

PET 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.

PET 4627 Management of Athletic Injuries (3) ED EDP
Athletic Training majors only. Advanced theory of pathology in injury, management of tissue and bone healing environments, disease, internal illness and injury and other general medical conditions. Issues related to radiology and pharmacology are also discussed.

PET 4632C Therapeutic Modalities (3) ED EDP
Athletic Training majors only. 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. This course provides an introduction to 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 4675 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.
PGY 5425C Photography (4) VP ART
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.

PGY 4420C Digital Media II (3) VP ART
Athletic Training majors only. Capstone course intended to provide a unifying opportunity to utilize concepts, principles and skills learned from other athletic training courses.

PGY 4422 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 total elementary school curriculum, characteristics of students, and application of appropriate content and instructional competencies.

PGY 4444 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 2401C Beginning Photography (3) VP ART
Introduction to the expressive possibilities of photographic media. Projects and assignments will introduce students to both traditional and experimental ways of working with light-sensitive materials with an emphasis on the interdependence of form, technique, and concept. The course will also provide an overview of significant trends and directions in contemporary art photography.

PGY 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 memorable icons. Open to majors and non-majors.

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 3620 Photojournalism II (3) AS COM
PR: PGY 3610C. Laboratory required. Advanced process and practice of photography for publication.

PGY 3801C Digital Media I (3) VP ART
Restricted to majors. This course builds upon the concepts introduced in Introduction to Multimedia Systems and focuses upon digital photographic creation and editing.

PGY 3900C 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 2401C. Continued problems in photography.

PGY 4620C Digital Media II (3) VP ART
Restricted to majors. This course builds upon the concepts introduced in Digital Media I and focuses upon digital photographic, web and digital video creation.

PGY 5425C Photography (4) VP ART
PR: CI. Advanced work in photography and related media leading to development of personal/expressive statements.

PHC 2581 Sex, Health, and Decision Making - SS (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 behaviors as well as a psychosocial and cultural view of antecedent behaviors.

PHH 2000 Introduction to Philosophy - 6A HP (3) AS PHI
An introduction to selected philosophical problems and traditions.

PHH 2006 History of Philosophy: Ancient and Medieval (3) AS PHI
A survey of Western philosophy from the pre-Socratics to the end of the Middle Ages.

PHH 3420 History of Philosophy: Modern (3) AS PHI
A survey of Western philosophy from the end of the Middle Ages to the nineteenth century.

PHH 4440 Continental Philosophy (3) AS PHI
A study of developments in post-Kantian European philosophy.

PHH 4600 Contemporary Philosophy - 6A MW (3) AS PHI
A survey of Western philosophy from the end of the Middle Ages to the nineteenth century.

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 103 Critical Thinking - SS (3) AS PHI
Methods of thinking that enable the reader to evaluate conclusions, with emphasis on concrete cases in ordinary thinking and the sciences.

PHI 1104 Critical Reasoning in Science and Society - 6A NS SS (3) AS PHI
This class teaches students to become a better “Scientific Citizen,” i.e. to be able to better understand and participate in the process by which we come to conclusions about the natural and social world that matter to us as a society.

PHI 2101 Introduction to Formal Logic - 6A QM (3) AS PHI
An elementary study of propositional, predicate, class and syllogistic logic with some attention to basic problems of logical theory.

PHI 2600 Ethical Theory (3) AS PHI
A study of ethical theories, concepts, problems and methods.

PHI 2631 Ethics and Business (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. To count, students must attend the first class. A topic may not be repeated for credit.

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/exism, 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 the principal religious issues 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 3910 Selected Topics (1-4) AS PHI
PR: CI. Selected topics according to the needs of the student.

PHI 4010 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 and arguments about 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 ethicists such as Wollstonecraft, Mill, Gilligan, Daly, Hoagland 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, narrative ethics—and on specific types of theories—deontological theories, consequentialist theories, rights-based theories, virtue theories.

PHI 4800 Aesthetics - 6A MW (3) AS PHI
A study of traditional and contemporary aesthetic theories with emphasis on creative process, the nature of the art work, the aesthetic response, expressiveness, form and content, as well as art and morality.

PHI 4900 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 metatheoretical 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, syntactical, and functional theories of language with special attention given to the problems of meaning, linguistic reference, syntactical form, and the relations between scientific languages and ordinary linguistic usage. Seminar format.

PHI 5639 Social Issues in Biomedical Ethics (3) AS PHI
An examination of the social and political issues arising from rapid changes in medicine and technology. Topics covered may include social issues related to the just distribution of health care, reproductive technologies, HIV and AIDS, eugenics, genetic testing, and maternal-fetal relations.

PHI 5913 Research (1-4) AS PHI
PR: CI. Approval slip from instructor required. Individual research supervised by a faculty member.

PHI 5934 Selected Topics (1-3) AS PHI
PR: CI. Approval slip from instructor required. Selected topics according to the needs of the senior students.

PHM 3100 Social Philosophy - 6A SS HP (3) AS PHI
An analysis of rival theories of social order and their philosophical foundations.

PHM 3400 Introduction to Philosophy of Law (3) AS PHI
A study of the fundamental concepts of law from a philosophical standpoint including crime, justice, punishment, free speech, insanity.

PHM 4120 Major Black Thinkers -MW (3) AS AFA
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 4322 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 feminist philosophical approaches to epistemology, aesthetics and political philosophy.

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 will include the dialogues Protagoras, Georgias, Meno, Republic.

PHP 4010 Aristotle - 6A MW (3) AS PHI
Study of Aristotle's philosophy.

PHP 4410 Kant (3) AS PHI
Lecture and discussion of Kant's philosophy, especially the Critique of Pure Reason.

PHP 4740 The Rationalists - 6A MW (3) AS PHI
A careful study of the metaphysics and epistemologies of Descartes, Spinoza, Leibniz, and Malebranche.

PHP 4745 The Empiricists -6A (3) AS PHI
A careful study of the metaphysics and epistemologies of Locke, Berkeley, Hume, and Thomas Reid.

PHP 4784 Analytical Philosophy -6A AS PHI
A study of the method devoted to clarifying philosophical problems through analysis of the language in which these problems are stated.

PHP 4788 Philosophy of Marxism - 6A MW (3) AS PHI
A critical survey of Marxist philosophy from Marx and Engels to Mao Tse-Tung and Herbert Marcuse. Hegelian foundations of Marxist philosophy analyzed in detail.

PHT 5021 Introduction to the Profession (2) ME PHT
Fundamentals of systems thinking, decision making, professional expression, responsibility and accountability (including legal/ethical concepts), culture and argumentation for the roles of the physical therapist in administration, consultation, critical inquiry, education, and patient/client management. Restricted to majors.

PHT 5022 Profession Expression (2) ME PHT
Development of a learning unit(s) on physical therapy research and the investigation of patient care plans by application of theories of systems thinking, decision making, professional expression, responsibility and accountability (including legal/ethical concepts), culture, and argumentation with emphasis on the critical inquiry and education roles of the physical therapist. Restricted to majors.

PHT 5023 PT & Other Hlth C Providers (3) ME PHT
Development of a prevention, wellness, or health program, and the determination of the legal scope of practice of the physical therapist and other health care providers by application of theories of systems thinking, decision making, professional expression, responsibility and accountability (including legal/ethical concepts), culture, and argumentation with emphasis on the consultation role of the physical therapist. Restricted to majors.

PHT 517C Basic Science I (4) ME PHT
Introduction to the peripheral neuromuscular, skeletal, integumentary, and circulatory systems in normal and pathological states. This includes the anatomy and physiology of bones, joints, skin, nerves, and blood vessels, as well as the response of these tissues to injury and their potential for healing. Topics will be correlated with PCM I. Restricted to majors.

PHT 517C School of Physical Therapy (2) ME PHT
Emphasis on physiology of the internal organ systems and physiologic of exercise.

PHT 517C Basic Science II (2) ME PHT
Emphasis on the physiology of the internal organ systems and the physiology of exercise.

PHT 517C Basic Science III (2) ME PHT
Guided integrative study of the brain, central and peripheral nervous systems, infectious disease processes, systemic diseases, aging and the degenerative process. This includes the anatomy, physiology and functional components of the brain and its descending tracts with respect to motor control and learning. Restricted to majors.

PHT 5271 Patient/Client Management I (3) ME PHT
Seminar in which basic principles of patient/client management are introduced. Also introduces students to the group learning and interactive process. Restricted to majors.

PHT 5272 Patient/Client Management II (2) ME PHT
Seminar in which students apply principles of patient/client management. This course further develops the group learning and interactive process. Restricted to majors.

PHT 5273 Patient/Client Management III (3) ME PHT
Seminar in which students apply principles of patient/client management to cases with increasing complexity (medical,
functional, behavioral, psychodynamic, socioeconomic). Restricted to majors.

**PHY 5275C Physical Therapy Science I (3) ME PHT**
Introduction to basic physical therapy skills in examination, evaluation, diagnosis, prognosis, intervention and outcomes. Activities will be correlated with the tutorial case in PCLM. Restricted to majors.

**PHY 5276C Physical Therapy Science II (3) ME PHT**
Further development and integration of basic physical therapy skills in examination, evaluation, diagnosis, prognosis, intervention and outcomes. Restricted to majors.

**PHY 5277C Physical Therapy Science III (3) ME PHT**
Integrative laboratory experience in skills for examination, evaluation, diagnosis, prognosis, intervention and outcomes for functional limitation and disability secondary to selected movement impairments. Restricted to majors.

**PHT 5622 Clinical Education I (3) ME PHT**
Initial clinical practice experience for the development of patient care skills. The course is graded Satisfactory/Unsatisfactory. Restricted to majors.

**PHT 5906 Directed Independent Study (1-10) ME PHT**
Directed independent study, content to be decided. Restricted to majors.

**PHY 2020 Conceptual Physics -NS (3) AS PHY**
No credit for Physics or Mathematics majors. A qualitative, non-calculus-based investigation of physics, emphasizing its influence on life today.

**PHY 2038 Energy and Humanity -NS (3) AS PHY**
Social, economic, and political aspects of energy: includes energy conservation, renewable energy, alternative fuel sources, changing lifestyles, and personal use of solar energy. The relevant basic laws of physics and the scientific method are emphasized. Field trips and audiovisual presentations play important roles.

**PHY 2048 General Physics I -NS (3) AS PHY**
PR: MAC 2281 or MAC 2311. Must be taken concurrently with lab and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2053 and PHY 2048 courses. First semester of a two-semester sequence of calculus-based general physics (mechanics, wave motion, sound, thermodynamics, geometrical and physical optics, electricity, and magnetism) for physics majors and engineering students.

**PHY 2048L General Physics I Laboratory (1) AS PHY**
PR: MAC 2281 or MAC 2311. Must be taken concurrently with lecture and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2053L and PHY 2048L courses. First semester of a two-semester sequence of general physics (mechanics, wave motion, sound, thermodynamics, geometrical and physical optics, electricity, and magnetism) and laboratory for physics majors and engineering students.

**PHY 2049 General Physics I -NS (3) AS PHY**
PR: MAC 2282 or MAC 2312, PHY 2048, PHY 2048L. Must be taken concurrently with lab and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2054 and PHY 2049 courses. Second semester of general physics and laboratory for physics majors and engineering students.

**PHY 2049L General Physics Laboratory I (1) AS PHY**
PR: MAC 2282 or MAC 2312, PHY 2048, PHY 2048L. Must be taken concurrently with lecture and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2054L and PHY 2049L courses. Second semester of general physics and laboratory for physics majors and engineering students.

**PHY 2053 General Physics -NS (3) AS PHY**
PR: MAC 1140 and MAC 1114, or MAC 1147. Must be taken concurrently with lab and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2053 and PHY 2048 courses. First semester of a two-semester sequence of non-calculus-based general physics (mechanics, heat, wave motion, sound, electricity, magnetism, optics, modern physics) for science students.

**PHY 2053L General Physics Laboratory I (1) AS PHY**
Must be taken concurrently with lecture and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2053L and PHY 2048L courses. First semester of a two-semester sequence of general physics (mechanics, heat, wave motion, sound, electricity, magnetism, optics, modern physics) laboratory for science students.

**PHY 2054 General Physics -NS (3) AS PHY**
PR: PHY 2043, PHY 2053L. Must be taken concurrently with lab and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2054L and PHY 2049L courses. Second semester of general physics lab for science students.

**PHY 2054L General Physics Laboratory (1) AS PHY**
PR: PHY 2053, PHY 2053L. Must be taken concurrently with lab and, if dropped, then dropped simultaneously. May not receive credit for both the PHY 2054L and PHY 2049L courses. Second semester of general physics lab for science students.

**PHY 3101 Modern Physics (3) AS PHY**

**PHY 3102 Mechanics (3) AS PHY**
PR: PHY 2048. CR: MAC 2283 or MAC 2313. First semester of a two-semester sequence. Review of vector algebra and vector calculus. Dynamics of single particles and systems of particles; central forces; rotation about an axis; statics; and virtual work.

**PHY 3323C Electricity and Magnetism I (4) AS PHY**
PR: PHY 2049, PHY 3221, MAC 2283 or MAC 2313. Electrostatic fields and potentials, dielectrics, classical conductivity, RC circuits. Fourier and finite element methods. Laboratory. First semester of sequence PHY 3323C, PHY 4324C.

**PHY 3424 Optics (4) AS PHY**
PR: PHY 2049, CR: MAC 2283 or MAC 2313. Reflection, refraction, dispersion, interference, diffraction, polarization, and laboratory.

**PHT 3822L Intermediate Laboratory (2) AS PHY**
PR: PHY 2049 or equivalent; CR: PHY 3101. Experiments in introductory physics to familiarize the student with the field of atomic, nuclear, solid state and wave phenomena.

**PHY 4031 Great Themes in Physics -6A MW (3) AS PHY**

**PHY 4222 Mechanics II (3) AS PHY**
PR: PHY 3221; CR: MAP 2302. Continuation of PHY 3221. Coupled oscillators and normal modes; moving coordinate systems; Lagrange's and Hamilton's equations; inertia tensor; general rotation of rigid bodies.

**PHY 4324C Electricity and Magnetism II (4) AS PHY**
PR: PHY 3323C, PHY 4222; CR: MAP 2302. Continuation of PHY 3323C. Introduction to special relativity, magnetic fields and potentials, magnetic materials, RL and RLC circuits, Maxwell's equations and applications. Laboratory.

**PHY 4523 Statistical Physics (3) AS PHY**
PR: PHY 3101, senior status. Statistical approach to thermodynamics and kinetic theory and introduction to statistical mechanics.

**PHY 4604 Introduction to Quantum Mechanics (3) AS PHY**
PR: PHY 3101, or CI. Basic concepts of quantum mechanics with emphasis on atomic, nuclear, and condensed matter physics.

**PHY 4744C Introduction to Electronics and Test Instrumentation (3) AS PHY**
PR: General Physics or CI. Not for major credit. Introduces the fundamentals of analog and digital electronics used in measurements and instrumentation. Weekly labs give hands-on experience in breadboarding electronic circuits and using test instrumentation (oscilloscopes, digital multimeters, etc.)

**PHY 4823L Advanced Laboratory (2) AS PHY**
PR: PHY 3822L. Experimental work primarily related to modern physics. Emphasis on experimental techniques used in current research.

**PHY 4905 Independent Study (1-3) AS PHY**
PR: CI. S/U only. Specialized, independent study determined by the student's need and interest. The written contract required by the College of Arts and Sciences specifies the regulations governing independent study.

**PHY 4910 Undergraduate Research (1-4) AS PHY**
PR: Senior or advanced junior standing and CC. S/U only. An individual investigation in the laboratory or library or both, under the supervision of the instructor. Credit hours and other contractual terms, are to be determined by student/instructor agreement.

**PHY 4930 Undergraduate Seminar (1) AS PHY**
PR: Senior or advanced junior standing and CC. S/U only. The seminar provides additional laboratory experience.

**USF Course Descriptions 263**
PHY 5937 Selected Topics in Physics (1-4) AS PHY
PR: Senior standing or consent of instructor. Each topic is a course in directed study under the supervision of a faculty member.

PHZ 2102 Problems in General Physics I (1) AS PHY
CR: PHY 2048 or PHY 2053. First semester of a two-semester sequence on solving problems in General Physics I. A course designed to be taken with the lecture course and to help students with developing problem-solving skills.

PHZ 2103 Problems in General Physics II (1) AS PHY
CR: PHY 2048 or PHY 2054. Second semester of a two-semester sequence on solving problems in General Physics II. A course designed to be taken with the lecture course and to help students with developing problem-solving skills.

PHZ 4151C Computational Physics I (3) AS PHY
Introduction to computer applications in physics. Emphasis on numerical modeling and simulation of physics problems using linear algebra, differential equations and Monte Carlo methods. No prior programming experience required.

PHZ 5115 Methods of Theoretical Physics I (3) AS PHY
PR: MAP 2302 or CI. Applications of mathematical techniques to classical and modern physics. Vector spaces including Hilbert space, orthogonal functions, generalized functions, Fourier analysis, transform calculus, and variational calculus.

PHZ 5116 Methods of Theoretical Physics II (3) AS PHY
PR: MAP 2302 or CI. Applications of mathematical techniques to classical and modern physics. Selected topics in complex analysis, differential and integral equations, numerical methods, and probability theory.

PHZ 4151C Computational Physics I (3) AS PHY
PR: CSE 5420 or CI. C programming applied to real science and engineering problems. Data analysis, numerical algorithms, modeling, parallel computation. Subjects selected from current research may include neurobiology, quantum magnetism, chaos, finance, materials science.

PHZ 5304 Nuclear Physics (3) AS PHY
PR: PHY 4604 or CI. Introduction to Boltzmann, magnetohydrodynamic and orbit approaches to plasmas. Longitudinal and electromagnetic waves in plasmas. Collisions and radiation. Instabilities.

PHZ 5405 Solid State Physics (3) AS PHY
PR: PHY 3101, MAP 2302, CI. Crystal structure, x-ray and electron diffraction, mechanical and thermal properties of solids, electrical and magnetic properties of metals, band theory of metals, insulators, and semiconductors. First semester of sequence PHZ 5405, PHZ 6426.

PHZ 5505 Plasma Physics I (3) AS PHY
PR: PHY 4604 or CI. 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.

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

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

POR 2201 Intermediate Portuguese II (3) AS WLE
POR 2200 builds upon the four language skills (speaking, comprehension, reading, and writing) introduced in POR 1120 and POR 1121.

POR 2201 Intermediate Portuguese II (3) AS WLE
For language students who intend to attain basic proficiency.

POS 2041 American National Government (3) AS POL
Analysis of basic principles and procedures of the American governmental system with emphasis on current issues and trends.

POS 2080 The American Political Tradition - SS HP (3) AS POL
This course is an introductory survey of the historical developments and changes in American political institutions, processes, and thought.

POS 2112 State and Local Government and Politics (3) AS POL
Analysis of the structure and function of state and local governments, of the social and political influences that shape them, and of the dynamics of their administrative processes.

POS 3142 Introduction to Urban Politics and Government (3) AS POL
Governmental and political structures and processes as they function in urban areas, with special focus on municipalities and locally based public services.

POS 3173 Southern Politics (3) AS POL
Examinations in electoral politics in the South, and the role of interest groups and the state and federal government in facilitating change.

POS 3182 Florida Politics and Government (3) AS POL
A study of Florida political culture, political parties and elections, the legislative, executive, and judicial systems, and policy patterns.

POS 3283 Judicial Process and Politics (3) AS POL
The organization, development, and functioning of American court systems and the causes and consequences of judicial behavior from an empirical perspective.

POS 3453 Political Parties and Interest Groups (3) AS POL
Analysis and understanding of role, functions, structure, and composition of such, and their impact on American governmental institutions.

POS 3691 Introduction to Law and Politics (3) AS POL
Nature of law, legal process, relationship to political life of constitutional law, administrative law, the judicial process, and private law.

POS 3697 Environmental Law (3) AS POL
Examines some of the major issues involving environmental law. Specially, the course provides a survey and analysis of statutes, both state and federal, regulating water, air, soil pollution, and resource conservation and recovery. It will also address questions pertaining to problems of implementation, interpretation, enforcement, and development of environmental laws.

POS 3713 Empirical Political Analysis (3) AS POL
Fundamentals of empirical political inquiry; systematic data collection and quantitative analysis techniques. Laboratory exercises using the computer are required.

POS 3931 Selected Topics (3) AS POL
Selected topics in political science with course content based upon student demand and instructor's interest.

POS 4204 Political Behavior, Public Opinion, and Elections (3) AS POL
Analysis of economic and socio-psychological factors influencing mass and elite political behavior; voting behavior, public opinion, and political activism.

POS 4413 The American Presidency - 6A (3) AS POL
The presidency as a political institution; analysis of powers; legislative, administrative, political, and foreign policy leadership; crisis management and decision making; White House staffing; limits on power.

POS 4424 The American Congress (3) AS POL
Organization, procedures, committee system, party leadership, relations with governmental and non-governmental organizations and agencies, oversight, decision-making processes, House/Senate comparisons.
PSY 4604 Psychological Science II -SS (3) AS PSY
PR: PSY 2012, psychology major or CI. Designed as an in-depth examination of the basic principles and concepts of psychological science. Extensive coverage will be given to the areas of learning, perception, physiological psychology, and cognition.

PSY 4934 Advanced Topics in Applied Behavior Analysis (4) AS PSY
PR: Admission to honors program in psychology and CI. A graduate-type seminar designed to provide the advanced undergraduate student with an in-depth understanding of a selected sub-area within psychology.

PSY 4935 Advanced Topics in Applied Behavior Analysis (4) 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 5094 Issues in American National and State Government (3) AS PSY
Selected topics of study in American government.

PSY 5155 Issues in Urban Government and Politics (3) AS PSY
Selected issues and topics in Urban Government and politics.

POT 3003 Introduction to Political Theory (3) AS POL
Examines various kinds of theory used in political science for understanding political life: normative theory, empirical theory, historicism theory, analytical theory, and critical theory.

POT 3013 Classical Political Theory (3) AS POL
Analysis of basic ideas of Plato, Aristotle, Cicero, St. Thomas, and other leading pre-modern political philosophers.

POT 4054 Modern Political Theory (3) AS POL
Analysis of basic political ideas of Machiavelli, Hobbes, Locke, Rousseau, Locke, and other modern philosophers.

POT 4064 Contemporary Political Thought (3) AS POL
Examines various political views and political phenomena in the nineteenth and twentieth centuries. Diverse theoretical types and salient political phenomena will be presented.

POT 4109 Politics and Literature -6A LW (3) AS POL
Critical examination of the connections between politics and literature.

POT 4204 American Political Thought (3) AS POL
Examines political writings in the U.S. and responses to critical periods in history, beginning with the Founding Fathers, and culminating in recent contributions and understanding contemporary political problems and solutions.

POT 4661 The Politics of Identity, Difference and Inequality -MW (3) AS POL
PR: POT 3003. An analysis of how relationships of social identity and difference become the basis of political and economic inequality in modern society. It incorporates both contemporary and classical discussions of inequality.

POT 4936 Selected Topics in Political Theory (3) AS POL
Selected topics or thinkers in political theory.

PPE 4004 Personality (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Methods and findings of personality theories and an evaluation of constitutional, environmental, genetic, and other modern theories of personality.

PSB 4013C Physiological Psychology (3) AS PSY
PR: PSY 3213 with a grade of C or better or CI. Gross neural and physiological components of behavior. Structure and function of the central nervous system and brain functions.

PSY 2012 Psychological Science I -SS (3) AS PSY
A broad survey of psychology for both majors and non-majors with special emphasis on the more applied areas of psychology (e.g., social psychology, abnormal psychology, personality, and developmental psychology).
PUR 4105 Advanced Reading (3) AS ENG
Designed to help students develop maximum reading efficiency.
The course includes extensive instruction and laboratory practice in the
improvement of adequate rates of reading, vocabulary, and
comprehensive skills. An independent study approach is also
available for students who prefer to assume responsibility for
their own progress. Will not be counted toward the English major.

REA 1605 Learning Strategies Within Academic Disciplines (2)
AS ENG
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 ENG
A practical course in rapid vocabulary improvement for students
in all areas. Stress is on words in context. Will not be counted
forward the English major.

REA 2930 Selected Topics: Learning Strategies (1-4) AS ENG
Topics will vary to meet the needs of students. Will not be counted
toward the English major.

RED 4310 Early Literacy Learning (3) ED EDE
PR: Admission to College of Education. Prepares preservice
teachers to understanding the foundations of literacy and the
learning principles and instructional strategies necessary to
promote literacy development to emergent, novice, and transitional
readers and writers.

RED 4511 Literacy in the Intermediate and Middle Grades (3) ED
EDU 1000
PR: RED 4310. Prepares preservice teachers to facilitate literacy
learning for students who are beyond the primary grades. Students
will develop an understanding of instructional strategies and
materials appropriate for remedial, multicultural, and mainstream
students ways to promote literacy development across the
curriculum, and theories of reading disabilities.

REE 3043 Real Estate Decision Making (3) BA FIN
PR: FIN 3403. Acquaints students with the range of knowledge
required to engage in real estate decision-making in the United
States. Integrates the institutional framework with which decisions
are made, the elements of financial analysis, deal structuring and
marketing, and the pricing, financing and allocation of real
property in 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) AS REL
This course will explore the unity and diversity of religious
traditions in our contemporary global context in order to understand
the cultural interactions between religions and cultures. Emphasis
will be placed on the role of religions in shaping human values
which can either create or resolve social conflicts, and the impact
these values can have on issues of race, ethnicity and religious
diversity in a multicultural world.

REL 3000 Ancient Religions in Context (4) AS REL
Study of the religions in their cultural setting of the peoples of the
Ancient Middle East and Mediterranean.

REL 3003 Introduction to 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 philosophical perspectives.

REL 3110 Religion and Popular Culture -SS HP (3) AS REL
An exploration and analysis of the relationship between religion
and popular culture, which will include inquiry into the definition
and meaning of both religion and popular culture, the impact of
REL 3111 The Religious Quest in Contemporary Films - 6A SS HP (4) AS REL
This course will use contemporary films such as Gandhi, Malcolm X, The Long Walk Home, the Color Purple, The Leap of Faith, The Chosen, and Grand Canyon, to explore the personal and social dimensions of religion in modern secular societies, with an emphasis on issues of racism, sexism and human liberation and reconciliation. 

REL 3114 Comedy, Tragedy, and Religion - 6A MW (3) AS REL
Examines the visions of life in comedy and tragedy, and relates both to Judaism, Christianity, and Zen Buddhism.

REL 3120 Religion in America - 6A MW (3) AS REL
To examine the movement from state church to pluralism in American religious institutions, the religious results of non-Protestant immigration; the Jewish factor; the effect of home missions and social concern programs upon American life; political entanglements and the concept of church/state separation.

REL 3131 New Religions in America - 3 AS REL
A course designed to allow the student to survey the wide spectrum of contemporary sects and cults in America and learn what motivates their development.

REL 3132 Witchcraft and Paganism in America - 3 AS REL
A study of contemporary witchcraft and paganism, including theories, methods, history, myths and symbols, beliefs, rituals, practices, believers, recruitment, socialization, and organizations.

REL 3140 Religion, Culture, and Society - 3 AS REL
Introductory scholarly survey of religion in its complex relationship to culture and society, including definitions and theories of religion, research methods, becoming religious, social organization, and interconnections with other social institutions. Open to non-majors.

REL 3145 Women and Religion - 6A (3) AS REL
Analysis of the status and roles of women as compared to men in the Judeo-Christian tradition. Contemporary issues of feminist theology, and the controversies surrounding them.

REL 3146 Womanist Vision in Religion - MW (3) AS REL
This course examines the works of Black Womanist writers in religion for their contributions to and insights into the phenomena of religion in America and the world.

REL 3155 Life After Death - 6A MW (3) AS REL
An exploration of ideas about life after death and its relations to this life in Judaism, Christianity, Islam, Hinduism, and Buddhism.

REL 3170 Religion, Ethics and Society Through Film - 6A SS HP (4) AS REL
An ethical analysis of contemporary social issues through contemporary films such as Wall Street and Crimes and Misdemeanors, drawing on religious narrative traditions from Eastern and Western cultures which have contributed to the development of an ethic of human dignity, human rights and human liberation after Auschwitz and Hiroshima.

REL 3280 Biblical Archaeology -MW (3) AS REL
An in depth examination of the archaeological data relating to the background and content of the Bible, including ancient customs, Biblical sites and cities, Biblical history, and material culture of the Biblical period. Special attention will also be given to excavation methods and interpretation of archaeological evidence.

REL 3303 Comparative Religion: Judaism and Islam -MW (3) AS REL
This course is framed within the academic study of religion, and it does not concern itself with contemporary political difference in the Middle East. It treats as Islam the normative statements of the Quaran 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 3330 The Religions of India -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, Bahai. Readings from classical texts and modern literature.

REL 3362 Introduction to Islam -6A HP AF (3) AS REL
This course introduces the basic elements of Islamic belief and practice, placing the rise of Islam in its historical context in the Middle East, and stressing issues of diversity (including ethnicity and gender).

REL 3367 Islam in the Modern World -6A HP AF (3) AS REL
Examines the major developments in Islamic thought since the 13th century, with emphasis on the 19th and 20th century Islamic response. Issues of diversity, gender, and social values will be stressed.

REL 3375 Issues in Caribbean Religions - MW (3) AS REL
This course concentrates on major social and cultural issues in Caribbean religions, mainly in Cuba, Haiti, Jamaica, and Trinidad, with emphasis on African-derived religions and Western and Eastern religious encounters.

REL 3380 Native American Religions - 3 AS REL
An introduction to and survey of Native American Religions. A variety of multiplicity of perspectives, including anthropological, historical, social psychological, sociological, and philosophical.

REL 3420 Contemporary Religious Thought - 3 AS REL
An examination of the central ideas of recent religious thinkers; such as Gandhi, Martin Luther King, Jr., Elie Wiesel, Thich Nhat Hanh, Dorothy Day, Dorothee Soelle, Howard Thurman, Thomas Merton and others.

REL 3485 Religion and the Meaning of Life - 6A MW (3) AS REL
What is the meaning of life? An exploration of answers to this question in Eastern and Western religions, and in humanistic philosophies of life.

REL 3501 History of Christianity - 6A HP (4) AS REL
Historical development of Western Christianity, its ideas and institutions, from the first century to the rise of religious modernism in the 19th century.

REL 3561 Roman Catholicism - 6A MW (3) AS REL
An examination of the history, doctrine, and ethics of the Roman Catholic Church.

REL 3600 Introduction to Judaism - 6A SS HP AF (3) AS REL
An introduction to Judaism: its religious tenets; its codes of ethics; its rites and customs. This course is intended as a description of what it means to be a Jew.

REL 3602 Classics of Judaism - 6A MW (3) AS REL
PR: One course in Religious Studies. How to read the principal documents of Judaism beyond the Old Testament, particularly the Mishnah, Talmuds, and Midrash.

REL 3611 History of Judaism - 3 AS REL
A study of the evolution of the religion of ancient Israel from the Exodus to the end of the second century of our era, seen against the background of its historical, geographical, political, social and spiritual setting.

REL 3613 Modern Judaism - 6A MW LW (3) AS REL
A study of Jewish life in the West since 1789, emphasizing Jewish beliefs, practices, and institutions.

REL 3801 History of Writing (2) AS REL
This course will study 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 - 6A MW (3) AS REL
A study of a 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 -MW (3) AS REL
A study of Mormonism in America as an example of a new religion. Includes the study of history, myths and symbols, texts, beliefs, practices, believers, recruitment, socialization, and organizations.

REL 4144 Women and the Bible - 6A HP AF MW LW (3) AS REL
How the redactors of Genesis through 2 Kings viewed women; the role women played in the society of the time in which they are portrayed and in that of the redactors; and, an attempt to find the “women’s voices,” however muted, within the biblical text.

REL 4161 Religion, Technology and Society - 3 AS REL
An exploration of ideas about life after death and its relations to the role women played in the society of the time in which they are portrayed and in that of the redactors; and, an attempt to find the “women’s voices,” however muted, within the biblical text.

REL 4161 Religion, Technology and Society - 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 -MW (3) AS REL
A study of Mormonism in America as an example of a new religion. Includes the study of history, myths and symbols, texts, beliefs, practices, believers, recruitment, socialization, and organizations.

REL 4144 Women and the Bible - 6A HP AF MW LW (3) AS REL
How the redactors of Genesis through 2 Kings viewed women; the role women played in the society of the time in which they are portrayed and in that of the redactors; and, an attempt to find the “women’s voices,” however muted, within the biblical text.
REL 4171 Contemporary Christian Ethics -6A MW (4) AS REL
PR: Jr. standing or CI. A survey of representative approaches to contemporary Christian ethics and their application to a number of ethical issues peculiar to personal and social life in contemporary society, with an emphasis on issues of race and gender and of violence and nonviolence.

REL 4177 Comparative Religious Ethics -6A MW LW (4) 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 Rosemarie Ruether and Joanna Macy, have drawn upon and transformed traditional religious stories and spiritual practices in order to create a cross-cultural and inter-religious ethic for a multi-cultural world.

REL 4193 Comparative Mysticism (4) AS REL
A course designed to acquaint the student with the nature of mystical experience, and some of the varieties of mystical experience recorded in the writings of the mystics, East and West.

REL 4215 Ancient Israel and the Development of the Hebrew Bible -6A HP AF MW LW (3) AS REL
An exploration of the formation and composition of the Hebrew Bible in light of the religious, social, political, and historical developments in antiquity.

REL 4221 Who Wrote the Bible (Genesis-Kings) -6A MW LW (4) AS REL
An examination of the various historical studies made in the quest of identifying Jesus as an historical figure. The concern is to make a reasonable assessment of who Jesus was and what he was saying to the Jews in Palestine at the beginning of the common era.

REL 4333 Hinduism (4) AS REL
The philosophy of the saints; the complex rituals of the Brahmins; the art of its temples; the psychology and physiology of yoga; the social rigidity of the caste system; the esoteric science of meditation; the ascetic activism of Mahatma Gandhi—all of these are Hinduism, and more. Close readings of classical texts, philosophic systems and medieval poems.

REL 4343 Buddhism in India, Sri Lanka, and South East Asia (4) AS REL
The life and teachings of the Buddha; the order of monks and nuns; the Buddhist Emperor Ashoka; schisms; the rise of the Great Vehicle and the philosophy of emptiness; Buddhist missions; Buddhist art and culture; Buddhism and national liberation; contemporary social and political issues.

REL 4344 Buddhism in China, Japan, and Tibet (4) AS REL
Mahayana Buddhism followed the silk routes to China and Japan, and later it crossed the Himalayas into Tibet. An overview of the variety of schools and practices of Buddhism and its adaptation by these ancient cultures.

REL 4626 Reason in Religion: Talmudic Logic -MW (3) AS REL
Analyzed the modes of thought and of logical analysis of the Talmud of Babylonia; the way in which applied logic and practical reason work in a religious definition of the social order; the dialectical argument.

REL 4670 Judaism and Christianity After the Holocaust -6A MW LW (4) AS REL
This course will explore the impact of the Holocaust on Jewish and Christian thought and identify the light of the history of religious and cultural anti-Semitism in Western civilization.

REL 4910 Undergraduate Research (1-4) AS REL
PR: Junior standing and CI. Individual investigations with faculty supervision.

REL 4930 Selected Topics (3) AS REL
Course contents depend on student demand and instructor's interest and may range over the whole field of Ancient Religions. Offerings on a semi-regular basis include the Bible as History 3.

REL 4931 Seminar in Religion (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 4939 The Development of Religious Studies (3) AS REL
Course designed for senior majors and minors in religious studies. Discussion of key figures and methodological advances in the development of the field from the 18th century to present, with readings of classics in the development.

RMI 3011 Principles of Insurance (3) BA FIN
Analysis of insurable risks of both business and individuals. An examination of the characteristics of those areas of risk and uncertainty where the mechanisms of insurance are effective alternatives. The concept, contracts, and institutions involved in insurance are examined in relationship to the socio-economic environment.

RMI 4115 Life, Health, And Disability Insurance (3) BA FIN
PR: OMB 3200, RMI 3011. The course will analyze the use of life, health, and disability insurance contracts as a method of dealing with the risks of death, sickness, and disability. It will include an analysis of cost determination of the various types of coverage.

RMI 4210 Property Insurance (3) BA FIN
PR: RMI 3011. Course dealing with recognition of personal and business property risks, and coverage that can be used in dealing with these risks. Considers the underwriting, marketing, and social problems associated with these coverages. Topics include commercial and residential fire insurance, inland marine and transportation coverages, and multiperil contracts. Not limited to Finance majors.

RMI 4220 Casualty Insurance (3) BA FIN
PR: RMI 3011. Course dealing with recognition of personal and business casualty risks and coverages that can be used in dealing with these risks. Considers the underwriting, marketing, and social problems associated with these coverages. Topics include workers compensation, public liability, auto liability, suretyship, and crime insurances. Not limited to Finance majors.

RTV 2100 Writing For Radio and TV (3) AS COM
PR: CRW 2100 or ENC 3310 and RTV 3001. The art and practice of script planning and writing for radio and television and for corporate videos.

RTV 3001 Introduction to Telecommunications (3) AS COM
PR: MMC 2100 and MMC 3602. A survey of the organization, structure, and function of the broadcasting industry.

RTV 3301 Broadcast News (4) AS COM
PR: MMC 2100 and MMC 3602. Methods in gathering, writing, and editing newscasts for radio and television.

RTV 3941 Radio Practicum (1) AS COM
PR: RTV 3001 and CI. For telecommunications sequence majors. S/U only. Practical experience outside the classroom where the student works for academic credit under the supervision of a professional practitioner. Periodic written and oral reports to the faculty member coordinating the study.

RTV 4320 Corporate Video Production and Directing (3) AS COM
PR: RTV 3001, RTV 3301, and RTV 4320. A basic course in the techniques of producing and directing TV programs.

RTV 4304 TV News (3) AS COM
PR: RTV 4320. Advanced television reporting, integrating broadcast news writing, ENG production and television performance.

RTV 4320 Electronic Field Production (3) AS COM
PR: RTV 3001 and RTV 3301. Advanced producing, scripting, lighting, camera, and editing for video and news production. Introduction to computer editing and graphics.

RTV 4500 Telecommunications Programming and Management (3) AS COM
PR: RTV 3001. Program and management concepts, resources, costs, selection, and scheduling. Analysis of programming and management in terms of structures, appeals and strengths.

RTV 4915 Telecommunications Law and Policy (3) AS COM
PR: for broadcast news option: MMC 4200, POS 2112 or POS 3142, RTV 3001, and RTV 3301; for production option: RTV 2100 or RTV 3301, RTV 3001 and RTV 4500. Senior Standing. A study of the electronic media from the perspective of governmental regulation and the political process with special emphasis on how regulatory policy is determined.

RTV 4942 TV Practicum (1) AS COM
PR: RTV 4220 and CI. Advanced 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
PR: RUS 1120. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. S/U only. A laboratory designed to offer additional practice using various instructional technologies and media.

RUS 1121 Beginning Russian II (4) AS WLE
PR: RUS 1120 or CI. CR: RUS 1121L. The second course in the study of elementary Russian. Emphasis on the development of basic skills in comprehension, speaking and reading.

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

RUS 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.

RUT 3110 Russian Classics in English -6A MW LW (3) AS WLE
Masterpieces of 19th century Russian literature in English. The major works of Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky, Tolstoy, and Chekhov. Elective for all students in all departments.

RUT 3111 Twentieth-Century Russian Literature in English -6A MW LW (3) AS WLE
Masterpieces of 20th century Soviet literature in English. The major works of Bely, Olesha, Babel, Zamyatin, Bulgakov, Pasternak, and Solzhenitsyn. Elective for all students in all departments.

SCE 4236 Science, Technology, Society Interaction -6A MW (4) ED EDN
Achieve a historical and philosophical understanding of (1) the nature of the scientific enterprise: interaction of science, technology, and society (STS), (2) how to teach STS including the use of computers and related technologies, and (3) intricacies of sample STS topics.

SCE 4305 Communication Skills in the Science Classroom (3) ED EDN
Reading and communication skills important in understanding scientific and science education literature and communicating findings to others.

SCE 4310 Teaching Elementary School Science (3) ED EDE
PR: Admission to College of Education General Distribution Requirements in the Natural Science area. Techniques and materials for teaching science in the elementary school.

SCE 4320 Teaching Methods in Middle Grade Science (3) ED EDN
PR: Completion of 25 semester hours of Science or CC. Not designed for high school certification purposes. Survey techniques and materials unique to science, grades 5-9.

SCE 4330 Teaching Methods in the Secondary School-Sciences (3) ED EDN
PR: Completion of 25 semester hours of Science or CC. Techniques and materials unique to science, secondary school science. Must be enrolled in the USF Summer Study in Moscow program.

SCE 4436 Senior Seminar in Science Education (1-2) ED EDN
CR: RUS 4936. One full semester of internship in a public or private school.

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
SDS 4040 Introduction to Student Personnel Work in Higher Education (2) ED EDG
PR: DPR. Study of student personnel services in institutions of higher education. Identification of the needs of students and of the ways to respond to meet these needs. Survey of service units on a campus in terms of structure, organization, funding, etc.

SLS 1101 The University Experience (2) ED EDG
PR: Freshman only. An extended introduction to USF. Topics include purposes of higher education, structure and function of USF career planning, selecting a major, study skills, managing time, academic advising, computer resources, and decision-making.

SLS 2260 Leadership Fundamentals (3) US STL
Covers a broad range of leadership topics from self-development and understanding of self, to group behavior, organizational design, ethics and team work. The potential of every individual to develop effective leadership skills is examined.

SLS 2401 Career Development Process (2) US STL
Students will study vocational choice theories and participate in career decision processes. Development of self-awareness and knowledge of career opportunities and requirements necessary for decision making. Available to lower level majors or non-majors.

SLS 3140 Survey of Leadership Readings (3) US STL
PR: SLS 2260. Survey of historical and contemporary writings on leadership skills and practices. Examines the contextual manner in which the leader functions.

SLS 3948 Community Leadership Practicum (3) US STL
PR: SLS 2260, PR: SLS 3140. This course involves the transference of leadership theories into practice. It provides a practical forum for students to examine and develop personal leadership skills.

SLS 3949 Organizational Theories and Processes (3) US STL
PR: SLS 2260 and SLS 3140. Participants will delve into the nature of organizational dynamics, they will utilize concepts, generalizations, theories, and frames of reference to analyze organizations and leadership to understand and improve their function.

SLS 4263 Theories of Leadership (3) US STL
PR: SLS 2260, PR: SLS 3140. Course focuses on historical and modern views of leadership. Designed to assist students in establishing a general understanding of leadership theories and styles as well as the effects of various leadership theories in specific settings.

SLS 4264 Ethics and Power in Leadership (3) US STL
PR: SLS 2260, PR: SLS 3140. Course reviews arguments for ethics in leadership as proposed by both contemporary and ancient leadership theories. It also examines theories of power and authority, and seeks answers to the apparent dilemmas through applied moral theory and psychology.

SLS 4266 Images of Leadership in Print and Film (3) US STL
PR: SLS 2260, PR: SLS 3140. This course examines the historical development of leadership theory through contemporary times. Surveys literature and other media relevant to role of the leader and to the development and application of leadership skills.

SOP 3742 Psychology of Women -SS (3) AS WST
An examination of theories of female personality in historical perspective. Current research on sex differences, socialization, sexuality, psychology of reproduction. Emerging roles of women as related to social change and developmental tasks of the lifetime.

SOP 4004 Social 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 an individual’s behavior as it is affected by others.
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SOP 4514 The Holocaust, Social Prejudice, and Morality (3) AS PSY
PR: PSY 2012. Examines the Holocaust from social, psychological, and communication/language perspectives. Reviews root causes of prejudice, the manifestations of hatred in language, relationships, and the ultimate impacts on victims and survivors and rescuers.

SOP 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 human behavior-social environment 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 and dispersion 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 introduction to the development of the social work 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 two-fold: to familiarize the student with research as it is practiced in the profession of Social Work; and to equip the student with those theoretical understandings necessary to be a critical consumer of social work research.

SOW 4233 Social Welfare: Policy & Program (4) AS SOK
PR: All provisional major courses, SOW 3101, SOW 3401, 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 (6) 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 interventive methods with individuals, families and small groups. Course includes both didactic and experiential learning components.

SOW 4343 Multi-Methods of Social Work Practice II: Macro-System Intervention (5) AS SOK
PR: All provisional major courses, SOW 3101, SOW 4522, SOW 4341; must be taken as PR. CR: SOW 3401, and SOW 3102. Restricted to full Social Work majors, others by School permission. Second practice course emphasizing intervention at the community and organizational level. Builds upon theoretical and practical content of SOW 4341. Course includes both didactic and experiential learning components.

SOW 4510 Integrated Seminar (3) AS SOK
PR: SOW 3302, SOW 3303, SOW 3101, SOW 3401, SOW 4341, SOW 3102, SOW 4343, SOW 4522. CR: SOW 4233, SOW 4510L. Restricted to full Social Work majors in senior year. Integrates content and theory from the classes with practice experiences students are having in field placement.

SOW 4510L Field Placement (6) AS SOK
PR: SOW 3302, SOW 3303, SOW 3101, SOW 3401, SOW 4341, SOW 3102, SOW 4522, SOW 4343, SOW 4541, SOW 4510L S/U only. Supervised field placement in a social welfare organization consisting of 32 hours per week in the field with a total of 480 clock hours per semester.

SOW 4522 Multicultural America (3) AS SOK
PR: All provisional major 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 4910 Directed Research (1-6) AS SOK
PR: Completion of four social work courses including SOW 3401, upper level standing and school permission. Majors only. Directed Research is intended to provide students with research experience in areas of specific interest in social work. A contract will be developed between student and instructor specifying nature of work to be completed.

SOW 4930 Variable Topics in Social Work (1-3) AS SOK
Restricted to Social Work majors; others by School permission. Variable title courses to expand on the four sequence areas in the Social Work core curriculum. Allows focus on areas relevant to student’s educational interest.

SWO 5900C Selected Topics in Social Work (1-4) AS SOK
PR: CC. Restricted to Social Work majors, both graduate and undergraduate; others by School permission. Course is taken as an elective. Various title 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 pathologies and management of disorders of the outer ear, middle ear, inner ear, retrocochlear, and central auditory systems.

SPA 3030 Introduction to Hearing Science (3) AS CSD
PR: Junior standing, SPA 3101, SPA 3112, SPA 3310. Introduction to the field of hearing including: physics of sound, auditory anatomy and physiology, and psychophysics of hearing.

SPA 3101 Anatomy and Physiology of the Speech and Hearing Mechanism (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 its relation to manual communication systems and philosophies. Emphasis on building a basic vocabulary. One hour of laboratory course work is included. Open to all majors.

SPA 3653 Overview of Language Learning in Deaf Children (3) AS CSD
PR: Admission to ISI 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 (3) AS CSD
PR: Admission to ISI 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
SPA 3660L Introduction to Interpreting in Public Schools Lab (1) AS CSD
PR: Admission to ISI 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 ISI 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 in oral-aural communication among children who have hearing impairment. It addresses techniques and methods of hearing measurement and amplification of sound as well as the interpreter’s role in audiological evaluation and speech language therapy.

SPA 4000 Communication Disorders in the Public Schools (3) AS CSD
PR: DPR. (Non-major course only). An examination of the speech, language and hearing problems affecting school-age children and the classroom teacher’s role in the detection, prevention and amelioration of communication disorders.

SPA 4050 Introduction to the Clinical Process -MW (3) AS CSD
PR: SPA 3004 and SPA 3310. Observation and participation in speech-language pathology and audiology practicum in the University clinical laboratory. Ethical issues, multicultural concerns, and creativity are stressed through clinical and practical projects.

SPA 4201 Phonological Development and Disorders (3) AS CSD
PR: SPA 3004, SPA 3011. An examination of phonology, phonetic and phonological acquisition and behavior. Presentation of major theoretical orientations and the therapeutic principles based upon them.

SPA 4210 Vocal Disorders (3) AS CSD
PR: SPA 3011 and SPA 3310. A comprehensive study of the medical and physical aspects of voice disorders. Differential diagnosis, principles of therapeutic intervention, and procedures for children and adults will be stressed.

SPA 4222 Fluency Disorders (3) AS CSD
PR: SPA 4201. A comprehensive study of disfluent speech behavior. Differential diagnosis, principles of therapeutic intervention, and procedures for children and adults will be studied. Major theories and models of the development and origin of disordered speech 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 Language (ASL). The student will have the opportunity to practice one of the sign systems.

SPA 4555 Counseling of Communicatively Handicapped and Family (3) AS CSD
PR: SPA 3011 and SPA 3310. Discussion of role of counseling in the treatment of communication disorders. Based on exploration of theoretical constructs, this course demonstrates application of therapeutic methodologies to reduction of communication handicaps.

SPA 4613C Intermediate American Sign Language (4) AS CSD
PR: SPA 3612D, DPR. A continuation of the basic course which expands the student’s signing skills and introduces American Sign Language (ASL) idioms. Provides a greater opportunity for skill development in ASL structure and idiomatic usage. One hour of laboratory course work is included.

SPA 4614C Advanced American Sign Language (4) AS CSD
PR: SPA 4613C, DPR. A continuation of the study of American Sign Language (ASL) at the advanced skill level. Added emphasis on idioms, body language, and facial expression as an integral part of ASL. An hour of laboratory course work is included.

SPA 4615L American Sign Language Laboratory (1) AS CSD
A laboratory course designed to offer students added practice with the material presented in the ASL course work through video and audio tapes.

SPA 4617 Structure of Sign Language (3) AS CSD
PR: SPA 4383 and SPA 4615L. A comprehensive introduction to the linguistic structure of American Sign Language (ASL). Topics include phonetics and phonemes; phonological processes; the inventory, structure, and distribution of language phonemes; principles of syntactic augmentation; detailed examination of the major syntactic structures of ASL; and the place of phonology, morphology, and syntax in terms of the larger context of grammar.

SPA 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 personal growth of the student. Includes interpreting practices and understanding teaching methods.

SPA 4662L Practicum: Interpreting in Public Schools Lab (1) AS CSD
PR: Admission to ISI Program. CR: SPA 4386. This course is restricted to majors only. This course provides advanced assessment of interpreting skills and interpreting integration of targeted school classes and activities. Selection criteria for using a particular sign system, mode, or language will be assessed and discussed in individualized meetings.

SPA 4685 Practicum: Interpreting in Schools (1-8) AS CSD
This course is restricted to majors. This course provides practice sessions in school settings under supervision of an experienced interpreter and course instructor. Each practicum student will shadow an interpreter, and participate in discussion about the overall performance.

SPA 4930 Selected Topics (1-6) AS CSD
PR: DPR. Intensive study of topics in Speech-Language Pathology, Audiology, and/or Aural Rehabilitation conducted under the supervision of a faculty member.

SPA 5132 Audiology Instrumentation (2) AS CSD
PR: DPR. Calibration, use, and interpretation 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 acoustic, production, and perception of normal and disordered speech.

SPA 5150L Speech Science Instrumentation (2) AS CSD
PR: DPR. Calibration, use, and interpretation of specialized instruments available for dealing with the identification and measurement of hearing disorders.

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SPA 5150L Speech Science Instrumentation (2) AS CSD
PR: DPR. Calibration, use, and interpretation of specialized instruments available for dealing with the identification and measurement of hearing disorders.

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.
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SPA 5288 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 5403 Communication Disorders: Language (3) AS CSD
PR: DPR. Examination of research and clinical literature presenting major theoretical orientations pertaining to the etiology, evaluations, and treatment of those factors that hinder or interrupt normal language acquisition or function in children and adults. Topics may include language disorders, apraxia of speech, dialects, and speech disorders.

SPA 5408 Language-Learning in the School-Age Years (3) AS CSD
PR: SPA 4201 and DPR. Metalinguistic and metacognitive development are linked to the instructional demands of classroom and clinical discourse; observational tools are applied to evaluation and intervention planning.

SPA 5506 Speech-Language Pathology and Audiology Practicum (1-6) AS CSD
PR: DPR. Participation in speech-language pathology and audiology practicum in the University Communication Disorders Center and selected field settings.

SPA 5552 Diagnostic Principles and Practices (2) AS CSD
PR: Admission to the graduate program or DPR. The administration, evaluation, and reporting of diagnostic tests and procedures used in assessment of speech and language disorders.

SPC 2241 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, theorists, 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 -SS (3) AS SPE
PR: Junior standing or CI. A survey of theory and research in group communication. Group discussions and communication exercises to increase awareness of the dynamics of human communication in small group settings.

SPC 3513 Argumentation and Debate (3) AS SPE
PR: Junior standing or CI. Study of principles of argumentation as applied in oral discourse, analysis of evidence and modes of reasoning. Practice in debate preparation and delivery.

SPC 3602 Advanced Public Speaking (3) AS SPE
PR: SPC 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 3613 Rhetoric of the Sixties -HP (3) AS SPE
Survey of the rhetorics associated with the civil rights movement, the Great Society, the anti-Vietnam War movement, the counter-culture, the black power movement, and the women's movement.

SPC 3633 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 fundamental messages of message analysis. Student examines persuasive strategies and language in oral and written discourse.

SPC 3710 Communication and Cultural Diversity -SS (3) AS SPE
Examines 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 4385 Communicating Emotions -6A (3) AS SPE
PR: Junior/Senior standing or CI. Study of emotional experience, what emotions mean to us, how we talk about them, and the ways group and cultural memberships influence them. Focus on attachment and loss in romantic, family and group relationships.

SPC 4387 Relationships on Film (3) AS SPE
Examines the role of emotions in the movies. Students will learn the psychology of emotions and be introduced to the study of emotion and film. Emotions will be categorized and studied in a filmic context.

SPC 4411 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, campaigns, social movements and individuals.

SPC 4683 Rhetorical Analysis of Mass Media (3) AS SPE
PR: SPC 3230 or SPC 3681. This course examines how social change is symbolized and motivated in the rhetorics of institutions, campaigns, social movements and individuals.

SPC 4714 Communication, Culture and Community -MW (3) AS SPE
Examines the relationships among culture, communication, institutions, and public and private life. Students explore the possibilities and problems of contemporary forms of community through service in a volunteer organization.

SPC 4900 Directed Readings (1-3) AS SPE
PR: Senior standing, minimum GPA 2.5, 15 hours of core requirements and 9 elective hours completed, and CI. Maximum 6 hours.

SPC 4903 Honors Readings (3) AS SPE
PR: Admission to Communication Honors Program. Focused readings directed toward preparation of a proposal for an undergraduate honors thesis.

SPC 4905 Undergraduate Research (1-3) AS SPE
PR: Senior standing, minimum GPA 2.5, 15 hours of core requirements and 9 elective hours completed, and CI. Maximum 6 hours. Individual investigations with faculty supervision.

SPC 4930 Selected Topics (1-3) AS SPE
PR: Senior standing, minimum GPA 2.5, 15 hours of core requirements and 9 elective hours completed, and CI. Topics will vary.

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 5930 Topics in Discourse (3) AS SPE
Variable topics course.

SPN 1120 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 1120 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. S/Un. Laboratory designed to offer additional practice using various instructional technologies and media.

SPN 1121 Beginning Spanish II (4) AS WLE
PR: SPN 1120 or equivalent. CR: SPN 1121L. Not open to native or near-native speakers of Spanish. Continued development of
SPN 1121L Beginning Spanish II Laboratory (1) AS WLE
CR: SPN 1121. Concurrent enrollment with a lecture session is required, and, if dropped, then dropped simultaneously. Not open to native or near-native speakers of Spanish. S/U only. Laboratory designed to offer additional practice using various instructional technologies and media.

SPN 1130 Accelerated Spanish For Near-Native Speakers and Others (1-6) AS WLE
PR: 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 I (3) AS WLE
PR: SPN 1121 or equivalent. 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 2202 Spanish II (3) AS WLE
PR: SPN 1121 or equivalent. NOT open to native or near-native speakers of Spanish. Continued development of basic skills in listening and reading comprehension, speaking and writing of Spanish.

SPN 2240 Conversation I (3) AS WLE
PR: SPN 1121. Not open to native or near-native speakers of Spanish. For development of basic conversational skills.

SPN 2241 Conversation II (3) AS WLE
PR: SPN 2240 or equivalent. NOT open to native or near-native speakers of Spanish. To improve fluency in spoken Spanish.

SPN 2270 Overseas Study (1-6) AS WLE
PR: SPN 1121. Prior departmental approval and early registration are required. An intensive study-travel program in a Spanish-speaking country.

SPN 2440 Spanish For Business (3) AS WLE
PR: SPN 2201 or equivalent. An introduction to the Spanish language as used in undertaking ordinary business transactions.

SPN 3300 Composition (3) AS WLE
PR: SPN 2200-SPN 2201. Not open to native or near-native speakers of Spanish. A study of syntax, grammar and writing.

SPN 3340 Advanced Spanish for Native Speakers I (3) AS WLE
PR: Native and near-native oral/aural proficiency. May not count as Spanish major elective. Course for native and near-native speakers of Spanish due to home environment and/or residence in a Spanish speaking country, but without formal training in the language. Emphasis on grammatical problems affecting such speakers. Texts and discussions in Spanish. This is primarily a discussion course, open to all majors and minors.

SPN 3341 Advanced Spanish for Native Speakers II (3) AS WLE
PR: SPN 3340. May not count as Spanish major elective. Continuation of SPN 3340. 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 those aspects of written expression such as style, syntax which are problematic for such speakers. Texts and discussions in Spanish. This is primarily a discussion course, open to all majors and minors.

SPN 3441 Advanced Spanish for Business Writing (3) AS WLE
PR: SPN 3440 or equivalent. Open to Spanish and Business majors and minors. Continuation of SPN 3440. Advanced business communication in Spanish through discussion, reading, and writing of representative texts from Spain, Mexico, and the Spanish speaking Caribbean. Emphasis on business forms and composition of proposals, reports, records, and the language of advertisement. Texts and discussions in Spanish. This is a discussion course, open to Spanish and Business majors and minors.

SPN 3500 Spanish Civilization (3) AS WLE
PR: SPN 1121. The culture and civilization of Spain.

SPN 3520 Spanish American Civilization (3) AS WLE
Readings and discussions on the culture and civilization of Spanish America. For majors and non-majors.

SPN 4301 Expository Writing (3) AS WLE
PR: SPN 3300. Not open to native or near-native speakers of Spanish. Practical training in current Spanish structure, usage and stylistic devices.

SPN 4410 Advanced Conversation (3) AS WLE
PR: SPN 2241 or equivalent. Not open to native or near-native speakers of Spanish. Intensive practice in the formulation and expression of ideas in standard Spanish.

SPN 4470 Advanced Overseas Study (1-6) AS WLE

SPN 4700 Spanish Linguistics (3) AS WLE
PR: LIN 3010 or equivalent (may be taken concurrently with CI) and SPN 2201 or equivalent. An introduction to Hispanic linguistics: Phonology, morphology, syntax, and lexicography.

SPN 5525 Modern Spanish American Civilization (3) AS WLE
PR: SPN 3500 or equivalent (may be taken concurrently with CI) and SPN 2201 or equivalent. Advanced readings and discussions dealing with Spanish American civilization and culture, including a study of social, artistic and political trends. Text and discussion in Spanish.

SPN 5567 Modern Spanish Civilization (3) AS WLE
PR: SPN 3500 or equivalent or graduate standing. Advanced readings and discussions dealing with contemporary Spanish civilization and culture, including a study of recent social, artistic and political trends. Text and discussion in Spanish.

SPT 2524 Women Writers of Latin America - AF (3) AS WLE
Literature of Latin-American women (in translation). Topics related to race and ethnicity, values and ethics, social, economic, and political issues. Readings will include oral histories, interviews, diaries and memoirs, poetry, short stories, and novels.

SPW 3030 Introduction to Hispanic Literature (3) AS WLE
PR: SPN 2201 or equivalent. Prose fiction, drama, poetry, and essay; techniques of literary analysis.

SPW 4100 Survey of Spanish Literature I (3) AS WLE
PR: SPN 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: SPN 3030 or equivalent. A study of the later periods of Spanish literature.

SPW 4131 Survey of Spanish-American Literature (3) AS WLE
PR: SPW 4101. An introduction to the study of Spanish-American literature from the Modernism period to the present. Emphasis on modern writers since Dario.

SPH 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. An appreciation of the romantic and realist periods in Spanish literature.

SPW 5355 Spanish American Drama and Poetry (3) AS WLE
PR: SPW 4131. Major writers of all genres. Emphasis on modern writers.

SPW 5387 Spanish American Prose (3) AS WLE
PR: SPW 4131. Emphasis on the gaucho theme and contemporary prose fiction.

SPW 5388 Golden Age Poetry and Drama (3) AS WLE
PR: SPW 4100. Lope de Vega, Alarcon, Tirso, Calderon, and others.

SPW 5405 Medieval Literature (3) AS WLE
PR: SPW 4100 or equiv. Course gives an in-depth study of principal works and authors of the period such as El Poema de Mio Cid, Libro de Buen Amor, and La Celestina.

SPW 5465 19th Century Literature (3) AS WLE
PR: SPW 4101. Introduction to Colonial Spanish American Literature from the discovery through the Romantic Period.

SPW 5485 19th Century Literature (3) AS WLE

SPW 5505 Spanish American Drama and Poetry (3) AS WLE
PR: SPW 4131. An appreciation of the romantic and realist periods in Spanish literature.

SPW 5605 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 CI. Study of an author, movement, or theme.

SSE 4133 Teaching Elementary Grades Social Studies (3) ED EDE
PR: Admission to College of Education or CI. This course is designed to study teaching 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 expected to plan and present instructional plan(s) demonstrating
STA 5166 Computational Statistics I (3) AS MTH
PR: STA 4321 and CGS 3422, or CI. Statistical analysis of data by means of statistics package programs. Regression, ANOVA, discriminant analysis, and analysis of categorical data. Emphasis is on inter-relation between statistical theory, numerical methods, and analysis of real life data.

STA 5228 Sampling Techniques (3) AS MTH
PR: STA 4421 or CI. Sampling versus total enumeration. Planning of a survey. Statistical sampling methods and their analysis; simple, stratified, systematic cluster, and double and multistage sampling. Use of auxiliary information in sampling. Ratio and regression estimates. Sampling strategies.

STA 5326 Mathematical Statistics (3) AS MTH
PR: STA 5446. Sample distribution theory, point & interval estimation, optimality theory, statistical decision theory, and hypothesis testing.

STA 5446 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 5326 or CC. Theory and methods of non-parametric statistics, order statistics, tolerance regions, and their applications.

SUR 2101C Engineering Land Surveying (3) EN EGX
Principles of land surveying for engineering practice. Traverses, levels, boundary surveys, route surveys, coordinate geometry, and mapping.

SYA 3010 Classical Theory (3) AS SOC
PR: SYG 2000 or CI. The analysis of the philosophical foundations, central principles, and historical development of Sociological theory. Required for Sociology majors and minors.

SYA 3015 Contemporary Theory (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 structures.

SYA 3022 Constructing Social Problems (3) AS SOC
Examination of how activists, media, politicians, and scientists construct public images of social problems; analysis of the process of forming social policy and how public images of social problems shape the characteristics of social service agencies.

SYA 3300 Research Methods (3) AS SOC
PR: STA 2122 or equivalent. Introduction to the scientific method and its application to social science research. Research design, sampling techniques, and critical evaluation of social research. Required for Sociology majors.

SYA 3310 Qualitative Inquiry -6A LW (4) AS SOC
PR: SYG 2000 or CI. DPR. Exploration of human relationships and behaviors, organizations, and the larger culture through research techniques such as interviews, participant observation, ethnography, and mapping.

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, problems in education, sociology of childhood, public life, socio-biology. Content will vary by semester and by section. See course schedule for specific contents each semester. This course, in different content areas, may be repeated for credit.

SYA 4935 Senior Seminar -MW (3) AS SOC
PR: Senior standing, SYG 2000, SYA 3010, SYA 3300 plus 6 hours of Sociology electives. majors only. DPR. The opportunity for senior Sociology majors to apply theory and methods to a selected topic of relevance in today's society. Topic changes by year. Contact instructor for specific schedule.

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 100 hours of volunteer service, and a weekly seminar on applying sociological skills and methods in the placement setting.

SYD 3441 Peasant Perspectives -AF (3) AS SOC
PR: SYG 2000 or 6 hours of other Social Sciences Gen. Ed. coursework or CI. Examines the applicability of sociological concepts to peasant life around the world, and explores the role of
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
Comparative study of interracial relations, social tensions, attitudes, and modes of adjustment in various areas of the world.

SYD 4410 Urban Sociology (3) AS SOC
The social structure of the community in modern industrial societies. Analysis of community change.

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 causes and dimensions of major public issues such as crime, the environment, inequality, gender, employment, and substance abuse.

SYG 2412 Marriage (3) AS SOC
Study of pre-marital relations. Social, cultural, and personal factors related to success and failure in mate selection and marriage. Does not count for sociology major credit.

SYG 3235 Latina Lives (3) AS SOC
An exploration of the experiences of Latinas in the United States. Uncover and examine such sociological themes as oppression, migration, values and family, activism, spirituality, and sexual identity through short stories, poetry, and scholarly research.

SYO 3120 Sociology of Families (3) AS SOC
With a goal to understand American families in the present, this course will examine variations in family types by social class, race, ethnicity, and historical era. Exploration of current controversies about how families should be organized and about what they should do for their members as well as how social policies related to families.

SYO 3200 Sociology of Religion (3) AS SOC
PR: SYG 2000 or CI. An examination of the meanings of religion lived in experiences in the contemporary United States. Includes the construction and maintenance of religious meanings and communities, the impact of those meanings and communities on daily lives, use and impact of religious discourse in daily lives, social movements motivated by religious beliefs.

SYO 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 role relations.

SYO 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 social stratification and reasons for its persistence.

SYO 4300 Political Sociology (3) AS SOC
PR: SYG 2000 or CI. An examination of the social factors that affect government, politics, and political behavior.

SYO 4370 Occupations and Professions (3) AS SOC
PR: SYG 2000 or CI. A comparative analysis of professions, particularly medicine, law, teaching, allied health professions, and engineering. Focus on the process of professionalizing service occupations like police work, business management, public administration and social work.

SYO 4400 Medical Sociology (3) AS SOC
PR: SYG 2000 or CI. The study of disease and the sick person including the analysis of health practices, beliefs, and practitioners, the hospital as an organization, the cost, financing, and politics of health care.

SYO 4430 Disability and Society -MW (3) AS SOC
PR: SYG/2000 or CI. Examination of sociological concepts to the experience of disability, and of disability as a means to a better understanding of the nature of social experience.

SYP 3000 Social Psychology -SS (3) AS SOC
An exploration of the social forces that help shape individual perceptions, behaviors, and personality. The study of ways individuals develop identity and self-worth.

SYP 3060 Sociology of Sexualities (3) AS SOC
Explores the interactions, among and between people and people and institutions that form the boundaries through which sexualities are understood in the United States. Addresses interactions with and within medical and religious institutions, racial/ethnic cultures, families and popular culture.

SYP 3562 Family Violence (3) AS SOC
Examination 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.

SYP 4420 Consumer Culture -6A MW LW (3) AS SOC
PR: SYG 2000 or CI. The exploration of how Americans’ purchasing behavior connects to larger historical shifts in our economy, including 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 deviant behaviors. 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 2021. Major concepts used in taxation of income by federal government including enactment of tax laws, basic tax rates, 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 concerning partnerships, corporations, estates and trusts, capital gains and losses, capital formation and preservation, tax compliance and tax alternatives.

THE 2020 Introduction to Theatre (3) VP TAR
An introduction to the art of theatre as part of the larger context of the nature of art itself. The approach will be both chronological and multi-cultural. Required of all theatre majors.

THE 2090 Languages of the Stage (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, TPP 2020. This course teaches theatre students the techniques of close reading of dramatic texts.

THE 3090C Modern Theatre Practice -6A (4) VP TAR
Initial readings and exercises in theatre; play analysis, script performance, and technical theatre for non-theatre majors.

THE 3110 Theatre History I -MW (3) VP TAR
PR: THE 2020. The study of theatrical production in its cultural context, including theatre architecture, scenography, acting and directing. Normally offered every other year. Required of all theatre majors. Open to upper division non-majors.

THE 3111 Theatre History II -MW (3) VP TAR
PR: THE 2020. A study of Theatre History in more detail as a companion to Theatre History I. This course and the companion Theatre History I will offer the opportunity for more careful study and emphasis on particular aspects of cross-cultural theatre in context.

THE 4180 Theatre Origins -6A MW LW (3) 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 furniture from ancient Egypt to the 20th Century. (A requirement in the design track/scenic.)

THE 4320 Theatre Of Myth And Ritual/Northern European (950-1600) & Oriental (400-1200) -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 theatre as expressed in Hindu, Chinese, and Japanese drama.

THE 4330 Shakespeare For The Theatre - 6A MW LW
PR: THE 3110 or THE 3111. A course in the function of the script for the theatre artist treating materials in the American Theatre from 1915 to 1964.

THE 4360 The 19th Century Theatre Revolution - 6A LW
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. Survey of the European art theatre revolution against the romantic realism of the commercial stage and its effect on subsequent theatre activity.

THE 4401 O’Neill And After - 6A LW
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. A course in the function of the script for the theatre artist treating materials in the American Theatre from 1915 to 1964.

THE 4434 Caribbean Theatre - 6A LW
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. A study of plays and popular theatrical forms of the Caribbean. The student will investigate the social and political forces that shape the culture of the Caribbean, the residual effects of the colonialism and the turbulence of independence as expressed in the dramatic art and theatre of the English-speaking West Indies.

THE 4435 Theatre Of Pluralism - 6A LW
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. The practice of theatre as it reflects cultural heritage, gender, race and sexual orientation. Study of contemporary scripts, critical and artistic statements.

THE 4442 Comedy Of The Classic And Neo-Classical Stage - 6A LW
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. A course in comedic function in scripts from Greek and Roman, Restoration and French Neoclassic of the late 17th century and other plays from the late 18th and late 19th centuries which reflect similar characteristics.

THE 4480 Drama-Special Topics - 3V TAR
PR: THE 3110 or THE 3111. Open to upper level non-majors with CI. A study of a significant playwright or playwrights, e.g. Moliere, Brecht, recent American dramatists.

THE 4562 Contemporary Performance Theory - 6A LW

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 4595 Honors Practicum (3) VP TAR
PR: THE 4593. Honors Practicum grows out of the Honors Seminar and engages students in workshops or production with guest artists. Past artists have included the Free Theatre of Munich, the San Francisco Mime Troupe, playwrights Eric Overmeyer, Jeff Jones and Gary Hill.

THE 4595 Honors Thesis (1-3) VP TAR
PR: THE 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 EDD
Methods of effective drama and theatre instruction in middle school, junior and high schools, recreation centers, community, and professional theatres.

THE 4761 Drama in Elementary School (3) VP EDD
Methods of theatre and drama activities in elementary school, including use of drama and theatre for interdisciplinary, integrated projects. Available to majors and non-majors, no extra laboratory sections.

THE 4905 Directed Studies (1-4) VP TAR
Independent studies in the various areas of Theatre. Course of study and credits must be assigned prior to registration.

THE 4930 Selected Topics In Theatre (1-8) VP TAR
PR: CI. The content of the course will be governed by student demand and instructor interest. May be lecture or class discussion or studio format.

THE 5909 Directed Studies (1-6) VP TAR
PR: CI. Open 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.
TP 3296 Design Practicum (2) VP TAR
PR: TPP 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.

TP 3840 Puppetry Performance And Production (4) VP TAR
PR: TPP 2230, TPP 2290L, TPP 2211, and TPP 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.

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 for the stage performer.

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 physical invention are examined and used to develop group creativity.

TPP 2115S Scene Study I (3) VP TAR
PR: Audition and all core 2000 level courses. Identify and investigate the fundamental elements of acting as applied to scene exploration, rehearsal, and presentation.

TP 3230 Laboratory Work In Performance (3) VP TAR
PR: Audition and TPP 2110. May be repeated twice for a total of 9 hours credit. Open to upper level non-majors by audition only. The content of the course will be governed by student demand and instructor interest.

TPP 3580 Special Skills In Movement (2) 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.

TPP 3790 Voice Preparation For The Actor (3) VP TAR
PR: TPP 2110. A concentrated laboratory on freeing the breathing function, developing body and oral resonance, and strengthening muscles used on the differentiation of speech sounds.

TPP 3920 Acting Studio I (8) VP TAR
PR: Audition, all lower level core theatre courses and junior standing. An intensive and comprehensive ensemble workshop that explores the basic principles of acting and the skills necessary for play, scene and character analysis. An emphasis is placed on the integration of body, voice, mind and emotions. This course will be team taught by the Performance faculty.

TPP 3921 Acting Studio II (8) 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 4140 Styles Of Acting (3) VP TAR
PR: TPP 3155 plus audition or TPP 3921. Examination of the actor’s craft and skills needed to fulfill the demands of classical theatre forms.

TPP 4180 Advanced Scene Study (3) VP TAR
PR: Audition and TPP 3155 or TPP 3921. An acting workshop focusing on application of character development and rehearsal technologies 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 crew. The acting, directing, and stage 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 4298 Advanced Design Practicum (3) VP TAR
PR: TPP 4011. This is a 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; technical direction; and theatrical production craft/skill areas. The student will be individually mentored by a faculty member through the process of developing and realizing a production design/craft/skill.

TPP 4310 Directing I (3) VP TAR
PR: TPP 3155 or TPP 3323. 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 pieces.

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 pieces.

TPP 4600 Writing For The Theatre (3) VP TAR
PR: TPP 3310 or TPP 3311. An elective sequence in writing, in which the student first encounters the problems unique to dramatic
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 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 2226 Female Experience in America (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 Women in Western Civilization II -HP (3) AS WST
Survey of European women from the late Middle Ages to the twentieth century: differing consequences of historical change for women and men.

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 environmental change; and analyze concepts related to ecofeminism.

WST 3311 Issues in Feminism -SS (3) AS WST
Survey of major issues relevant to the female experience: marriage and the family, sexuality, work, creativity.

WST 3440 Women and Social Action -SS (3) AS WST
Course focuses on ordinary women working collectively in diverse social settings to empower themselves and others to challenge gender stereotypes; to reduce harassment, poverty, violence and homelessness; to enhance health-care and family life and to confront barriers in education, the media and the criminal justice system.

WST 4262 Literature by American Women of Color -6A LW (3) AS WST
Will not be counted toward the English major. An introduction to contemporary, women's experiences, and the family, sexuality, work, creativity.

WST 4310 Feminism in America -6A MW (3) AS WST
A study of feminist critiques of American women’s experiences and status, and their implications for women’s lives, by 19th- and 20th-century theorists, and how adequately these various critiques address the intersections of gender, race, class, ethnicity, and. race.

WST 4320 Woman's Body/Woman's Mind (3) AS WST
An analysis of the historical, social and political perspectives of women’s health and healing experiences, and how woman's role as patient and provider of care are shaped by public and cultural assumptions.

WST 4335 Women and Film (4) AS WST

WST 4350 Women and Science -MW (3) AS WST
An examination of selected issues related to women and the natural and physical sciences, including historical participation of women in science, current status of women in science, and feminist critiques of science as a discipline.

WST 4410 Third World Women Writers -6A LW (3) AS WST
Will not be counted toward the English major. Introduces the literature of women from various anglophone countries in Africa, the Caribbean, and South Asia; some U.S. writers will be included to represent a third world diasporic consciousness.
WST 4522 Classics in Feminist Theory -MW (3) AS WST
A study of classic contributions to the elaboration of feminist
thought from the 18th century to the present in an attempt to
discover the roots of the contemporary feminist movement. (May
also be taken for credit in Philosophy.)

WST 4560 Contemporary Feminist Theory (3) AS WST
PR: Completion of one upper division Women’s Studies course.
An exposure to and an exploitation of a wide range of current
feminist theories and debates, as well as an examination of the
possible political and practical implications for various theoretical
positions.

WST 4900 Directed Readings (1-3) AS WST
PR: Registration requires instructor’s written consent and signed
contracts from instructor of choice. To provide advanced students
with interdisciplinary research experience in areas of specific
interest.

WST 4910 Directed Research (1-3) AS WST
PR: Registration requires written contract signed by student and
instructor of choice. To provide advanced students with
interdisciplinary research experience in areas of specific interest.

WST 4930 Selected Topics (1-4) AS WST
Study in special areas such as Women and Work, Reproductive
Law, Women and Health.

WST 4935 Seminar in Women’s Studies (3) AS WST
PR: Women’s Studies Major and 24 credit hours in Women’s
Studies. Recognizing the interplay between personal connections
and intellectual experience, this capstone course is designed to
focus on topical areas related to women’s studies and facilitate
linking student learning experience to future plans.

WST 5308 Feminist Spirituality (3) AS WST
Open to non-majors. Focuses on the many voices of contemporary
feminist spirituality, emerging from women’s experiences in
diverse religious, ethnic and cultural traditions, and representing
a range of theoretical perspectives from biblical feminism to
goddess worship and wicca.

WST 5325 Internship in Women’s Studies (3) AS WST
PR: Must have completed Comprehensive Exam. Majors Only.
All required courses in MA program, CC. Student placement in
approved intern setting for a minimum of 150 hours of supervised
experience. S/U. Department Approval Required.

WST 5334 Selected Topics (1-4) AS WST
PR: DPR. Study of current research methods and scholarship on
women from a multidisciplinary perspective.

WST 5940 Internship in Women’s Studies (3) AS WST
Student placement in an approved intern setting for a minimum
of 150 hours of supervised experience. S/U only. PR: Majors
only. All required courses in MA program, CC. Permit.

YOR 1120 Yoruba I (4) AS WLE
This course is designed to familiarize students with modern
orthography and to develop skills in reading, writing, speaking,
and understanding spoken Yoruba. Pronunciation in Yoruba and
achieving basic communicative competence in the language are
among the skills to be attained in the course.

ZOO 2303 Vertebrate Zoology (3) AS BIO
PR: BSC 2010, BSC 2010L, BSC 211, BSC 211L. The origin,
diversity, and adaptations of vertebrates. Phylogenetic systematics
(cladistics) will be used as the basis for determining evolutionary
relationships of organisms.

ZOO 3205C Advanced Invertebrate Zoology (4) AS BIO
PR: BSC 2010, BSC 2010L, BSC 211, BSC 211L. An
introduction to the major invertebrate groups, with emphasis on
local forms. Field work will be required. Lec.-lab.

ZOO 3323C Anatomy of Chordates (4) AS BIO
PR: BSC 2010, BSC 2011, BSC 211L. Anatomy of
selected vertebrate types emphasizing evolutionary trends. Lec.-
lab.

ZOO 3713C Comparative Vertebrate Anatomy (4) AS BIO
PR: BSC 2010, BSC 211. Anatomy of selected vertebrate types
emphasizing evolutionary trends. Lec.-Lab.

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
PR: PCB 3023. Structural and functional events involved in
differentiation and morphogenesis. Lec.-lab.

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 3030C, PCB 3043, 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 5425C 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 5456C 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 555C 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.