# Bachelor of Engineering Technology
(A.S. Degree* plus 60 Semester Hrs.)

*One year non-calculus Physics and one year Calculus additionally required if not completed in A.S. degree.

Areas of Concentration:
- A) Computers
- B) Management

## Junior Year:

### Semester I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>CGS 3060</td>
<td>Introduction to Computers I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2203</td>
<td>Economic Principles (Microeconomics)</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3613</td>
<td>Engineering Economy I</td>
<td>3</td>
</tr>
<tr>
<td>ETI 4600</td>
<td>Industrial Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACG 2001</td>
<td>Elementary Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>CDA 3100</td>
<td>Computers II</td>
<td>3</td>
</tr>
<tr>
<td>COP 3120</td>
<td>COBOL I</td>
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**Area of Concentration**: 15

### Semester II

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CDA 3100</td>
<td>Computers II</td>
<td>3</td>
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<tr>
<td>ACG 2011</td>
<td>Elementary Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ECO 2013</td>
<td>Economic Principles (Macroecon.)</td>
<td>3</td>
</tr>
<tr>
<td>COP 3120</td>
<td>COBOL I</td>
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**Area of Concentration**: 15

### Senior Year:

#### Semester I

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>STA 3023</td>
<td>Introductory Statistics I</td>
<td>4</td>
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<tr>
<td>COP 3200</td>
<td>FORTRAN</td>
<td>3</td>
</tr>
<tr>
<td>ETI 4614</td>
<td>Principles of Indus. Ops. I</td>
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**Area of Concentration**: 16

#### Semester II

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ETI 4661</td>
<td>Principles of Indus. Ops. II (Project)</td>
<td>3</td>
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<tr>
<td></td>
<td>Approved Communications Course</td>
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**Area of Concentration**: 8

**Areas of Concentration (17 semester hours)**

<table>
<thead>
<tr>
<th>Area of Concentration</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Computer</td>
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<tr>
<td>COP 3121</td>
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<tr>
<td>CGS 3462</td>
<td></td>
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<tr>
<td>CDA 3101</td>
<td></td>
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<td>ETG 4931</td>
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<tr>
<td>General Studies Electives</td>
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**Management**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MAN 3025</td>
<td>Princ. of Management</td>
<td>3</td>
</tr>
<tr>
<td>MAR 3023</td>
<td>Basic Marketing</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3403</td>
<td>Princ. of Finance</td>
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**General Studies Electives**: 8

**Approved listing of General Study Electives/Humanities Social Sciences and Communication courses available in Engineering Advising Office (ENG 104).**

## Bachelor's Curriculum For Computer Technology

### Semester I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENC 1101</td>
<td>Freshman English I</td>
<td>3</td>
</tr>
<tr>
<td>MAC 2233</td>
<td>Elem. Calc. I</td>
<td>4</td>
</tr>
<tr>
<td>ACG 2001</td>
<td>Elementary Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>CGS 3060</td>
<td>Intro to Computers (Basic)</td>
<td>3</td>
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**Humanities**: 16

### Semester II

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENC 1102</td>
<td>Freshman English II</td>
<td>3</td>
</tr>
<tr>
<td>MAC 2234</td>
<td>Elem. Calc. II</td>
<td>4</td>
</tr>
<tr>
<td>ACG 2011</td>
<td>Accounting II</td>
<td>3</td>
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<tr>
<td>COP 3200</td>
<td>FORTRAN</td>
<td>3</td>
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<tr>
<td>Humanities</td>
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### Semester III

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ECO 2013</td>
<td>Macroeconomics</td>
<td>3</td>
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<tr>
<td>EGN 3613C</td>
<td>Engineering Economy</td>
<td>3</td>
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<tr>
<td>PHY 3053</td>
<td>General Physics I</td>
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<tr>
<td>PHY 3053L</td>
<td>General Physics Lab I</td>
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<tr>
<td>CDA 3100</td>
<td>Computers II</td>
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**Approved Non-technical Elective**: 3

### Semester IV

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PHY 3054</td>
<td>General Physics II</td>
<td>3</td>
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<tr>
<td>PHY 3054L</td>
<td>General Physics Lab II</td>
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</tr>
<tr>
<td>CDA 3101</td>
<td>Computers III</td>
<td>3</td>
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<tr>
<td>STA 3023</td>
<td>Intro. Statistics</td>
<td>4</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>Microeconomics</td>
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**Approved Non-technical Elective**: 3

### Semester V

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ETI 4600</td>
<td>Industrial Systems</td>
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<tr>
<td>CGS 3462</td>
<td>PASCAL</td>
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<tr>
<td>MAN 3025</td>
<td>Princ. Management</td>
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<tr>
<td>CGS 4260</td>
<td>Mini-Computer Application</td>
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**Humanities/Social Science**: 16

### Semester VI

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ETI 4614</td>
<td>Princ. Indus. Oper. I</td>
<td>3</td>
</tr>
<tr>
<td>COP 3120</td>
<td>COBOL I</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3403</td>
<td>Princ. Finance</td>
<td>3</td>
</tr>
<tr>
<td>CGS 4465</td>
<td>Data Rep. &amp; Manipulation</td>
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**Communications Course**: 3

**Semester VII**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COP 3121</td>
<td>COBOL II</td>
<td>3</td>
</tr>
<tr>
<td>MAR 3023</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ETG 4931</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>COP 3300</td>
<td>GPSS (or Technical Elective)</td>
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**Semester VIII**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ETI 4661</td>
<td>Princ. Ind. Oper. II</td>
<td>3</td>
</tr>
<tr>
<td>CGS 3464</td>
<td>SIMSCRIPT Simulation</td>
<td>3</td>
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<tr>
<td>COP 3130</td>
<td>PL/I (or Technical Elective)</td>
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**Humanities/Social Science**: 12

*Approved listings of general studies, Humanities, Social Sciences and Communication courses are available in the Engineering Advising Office (ENG 104).*

Students who are currently following a program other than that of an Associate of Science degree in Engineering Technology at a community college and who are interested in pursuit of studies in this field should contact the College of Engineering for further guidance.

Further information is available from:
- Director of Engineering Technology
- USF St. Petersburg Campus
  410 Seventh Avenue, South
  St. Petersburg, Florida 33701

or
Director of Engineering Technology
College of Engineering
University of South Florida
Tampa, Florida 33620

Computer Service Courses
These courses marked SC are specifically designed for the non-engineering student.

Recognizing that the general purpose digital computer has made significant contributions to the advancement of all elements of the academic community and that it will have an ever greater impact in the future, the College of Engineering offers several levels of credit coursework, undergraduate and graduate, to serve students of all colleges in order that they may be prepared to meet the computer challenge.

Computer-oriented courses are offered in two broad categories: (1) those courses which are concerned with the operation, organization and programming of computers and computer systems from the viewpoint of examining the fundamental principles involved in computer usage; and (2) those courses which are concerned with computer applications to a variety of different disciplines, by means of user-oriented-languages such as FORTRAN, PL/I, COBOL, PASCAL, BASIC, "C" and ADA.

Students in engineering, the physical sciences, and mathematics must consult their adviser for suitable computer courses, since these courses are not acceptable to a number of degree programs.

College Facilities
Each of the departments has several modern well-equipped laboratories that are used for undergraduate teaching. Some examples of specialized equipment available are a scanning electron microscope, a gas chromatograph mass spectrometer, a 250,000 lb. material testing machine, several microprocessor base control systems, industrial robots, a low turbulence subsonic wind tunnel, computer numerical controlled machinery, metal organic chemical vapor deposition systems, and integrated circuits design workstations.

College Computing Facilities
The College of Engineering Computing Facilities are used to provide support for specialized engineering calculations above and beyond those which are available at the IBM based Central Florida Regional Data Center (CFRDC).

The College of Engineering operates a cluster of file and computer servers for students and faculty within the College. These consist of SUN servers and four Ardent multiprocessors mini-supercomputers. The networks provide access from offices and laboratories, computer rooms and dial-in facilities. All machines are configured for E-mail, and access to Internet. Conventional asynchronous links to the campus central facility will shortly be supplemented with an Ethernet link.

In addition to the network facilities, the College operates open access P.C. labs. Two are available for undergraduate engineering students; a third smaller lab is reserved for graduate students and faculty. Another open access P.C. lab is operated in conjunction with the Technology program.

The network facilities provide access either via Ethernet or the ISDN. Connections to offices, laboratories and classrooms are available on request, subject to budget priorities. The FEEDS studies are also networked to provide demonstrations for remote classes.

The College facilities run most of the standard engineering software. Languages include Fortran, Basic, Pascal, C. Ada, several varieties of LISP and Prolog. Applications software includes mathematical libraries, suites of programs for VLSI design, chemical process design, civil and mechanical engineering design, robotics simulation, and circuit simulation and analysis. There are high resolution color terminals for use in conjunction with these activities, and for mechanical design there are four multiple display workstations with joysticks and digitizing pads. Similar arrangements are used for VLSI design.

Additionally, the Computer Science and Engineering Department within the College runs other facilities consisting of the three VAX machines, an Ethernet with SUN and AT&T 3B2 machines, and extensive microcomputer laboratories.

Cooperative Education Program
A wide variety of industries and government agencies have established cooperative programs for engineering students to provide them the opportunity to become familiar with the practical aspects of industrial operations and engineering careers. Students in the Career Resource Center's Cooperative Education (Co-op) program alternate periods of paid employment in their major field with like periods of study. Students following the Co-op program usually encounter no problems in scheduling their program, since required Social Science and Humanities, Mathematics and Science, and Engineering Core courses are offered every semester. Students normally apply for participation in this program during their sophomore year and pursue actual Co-op employment during their sophomore and junior years. The senior year is normally studied on campus and many specialization courses are not offered every semester. The students receive a Cooperative Education Certificate upon successful completion of a minimum of three work assignments.

Florida Engineering and Industrial Experiment Station (USF)
The Florida Engineering and Industrial Experiment Station developed from early research activities of the engineering faculty at the University of Florida and was officially established in 1941 by the Legislature. Its mandate is to "organize and promote the prosecution of research to such of these problems as are important to the industries of Florida." In 1977, the University of Florida extended the provisions of the Engineering and Industrial Experiment to the Engineering College of the University of South Florida and two other State engineering colleges. The Legislature continues to support this extension with appropriations. The four colleges of engineering now work together in a joint effort through EIES to assist industry with special problems that can be appropriately solved by engineering colleges. During the year 1987-88 a sponsored research volume of approximately 5 million dollars passed through EIES (USF). All departments, faculty as well as students, contribute to the research at the University of South Florida. This program is administered by the Engineering Associate Dean for Research. The direct exposure of students to real research needs of the State adds extra meaning and depth to the engineering education offered by the College.

NASA STAC
(Southern Technology Applications Center)
STAC is a multi-state technology transfer organization headquartered in Florida with offices in the College of Engineering at the University of South Florida, and five other SUS universities. STAC's primary mission is to identify promising technologies developed by engineers and researchers in university and federal labs, and to facilitate their commercialization through private sector businesses. In this way American companies, especially small firms, are able to capitalize rapidly on the results of scientific research and technological innovation and realize the increased productivity necessary to compete in the global marketplace.

STAC teams with researchers, inventors, entrepreneurs, start-up companies and established firms in solving their business problems and overcoming their technical hurdles. STAC's team brings diverse professional experience to bear on client projects - including Electrical and Mechanical Engineering, Fluid Mechanics, Computer Technology, Marine Chemistry, Oceanography, Medicine and Dentistry, Biomedical Engineering, Laser Optics, Information Science, Transportation, Anthropology, Manufacturing Management, Systems Analysis, Marketing
and Strategic Planning, International Trade and Economic Development. Other experts located in universities, government agencies and the 300+ federal labs nationwide are frequently brought in to complement STAC's in-house expertise. Services offered on a cost reimbursable basis include Feasibility Studies, Market Analysis, Team Building, Proposal Writing, Computerized Searching, Inventor Counseling, and Project Management.

The cornerstone of STAC's technology transfer capabilities is its Information Research Center (IRC). IRC researchers have logged over 200,000 hours of connect time in STAC's international array of more than 1,500 on-line databases that reference a half billion published articles, studies, patents, books and reports. They have assembled an extensive in-house library of journals, news bulletins and periodicals published by leading trade associations and special interest groups which provide data, statistics and news items that are often not distributed publicly. These research capabilities combined with rapid retrieval of documents enables STAC to locate efficiently critical technologies, marketing and business data, experts, facilities and equipment to complete successfully project tasks.

As one of nine NASA Industrial Applications Centers, STAC also promotes the business benefits of the Space Program, from the ordinary procurement needs of the Agency to Small Business Innovation Research Grants (SBIR) for high tech research to microgravity experiments leading eventually to manufacturing in space. Capitalizing on our nation's most valuable renewable resource STC promotes the pursuit of science and engineering careers through outreach seminars to K-12 students who will eventually live and work in space.

Army & Air Force R.O.T.C.

For Engineering Students

The Engineering curriculum, coupled with involvement in the Army or Air Force R.O.T.C. program, requires a minimum of five (5) years to complete the degree requirements. Army and Air Force R.O.T.C. cadets must take 16 additional hours in either military science or aerospace studies. Additionally, Air Force-sponsored summer training camp is scheduled between the sophomore and junior year for Air Force cadets, and Army cadets attend an Army-sponsored summer training program between the junior and senior years.

Bi-County Center for Engineering

The Bi-County Center for Engineering was established on the USF at Sarasota campus in 1984. It serves the Manatee and Sarasota County area by providing local access to the College of Engineering program. Selected courses from all departments are offered in response to student needs. The professional programs in Electrical and Computer Engineering, together with Engineering Technology, are areas of special emphasis. Students who begin as freshmen at Manatee Community College and complete the A.A. in Pre-Engineering are able to transfer directly into USF and continue toward the Bachelor's degree. Other transfer students will be evaluated on an individual basis. All coursework taken at USF as part of a planned degree program is applicable to that program without any campus distinction. Students may move freely between the main campus in Tampa and the regional campus in Sarasota. For information, contact the Engineering Advising Office in Tampa or the Bi-County Center Office in Sarasota.
COLLEGE OF FINE ARTS

The College of Fine Arts exists in the atmosphere of a comprehensive University. It provides opportunities for students to develop their interests and talents to the highest level possible and encourages them to do so whether they wish to commit to a life in the arts or, as a general interest, to develop appreciation and involvement in the arts. For these purposes, the College educates in the practice of creating, performing, presenting and understanding theatre, music, dance and the visual arts. Our mission is three-fold:

1. Teaching the disciplines for creating, performing, presenting and understanding the arts. This is done by providing the full range of educating experiences that prepare students to:
   a. Practice an art as a full time life commitment;
   b. Practice an art as an important element of the individual's life commitment;
   c. Appreciate the arts as important life enrichers.

2. Creating and researching the arts:
   a. To expand horizons and explore new dimensions in the arts;
   b. To contribute to the expansion of general knowledge and information about the arts;
   c. To improve the teacher’s own effectiveness with students.

3. Serving the public by providing cultural enrichment and expertise.
   In recognition of its academic and artistic achievements the College of Fine Arts has been given program of emphasis status by the Board of Regents of the State University System. The college offers degree programs and courses in art, dance, music and theatre. In addition, it also offers courses in music education and art education in cooperation with the College of Education.

Fine Arts Events
The College of Fine Arts, recognizing the importance of maintaining an arts-filled environment as an integral part of the total learning experience it offers to the students within the college and to the community at large, is critically aware that a truly comprehensive university performing arts program must include performances and related activities by internationally recognized artists and ensembles.

The list of prestigious artists who have been presented over the years by the College of Fine Arts is impressive and a sampling includes John Cage, the Guarnieri String Quartet, Lazar Berman, the New York Pro-Musica, Alvin Alley, Martha Graham, Marcel Marceau, and the Polish Mime Ballet Theatre. (More extensive lists of visiting artists and performing organizations appear in this catalog under the sections of the specific academic units in the college in which research, demonstration, teaching, and other educational activities have directly benefited students.)

BACCALAUREATE-LEVEL DEGREE PROGRAMS
Programs Leading to the Baccalaureate Degree
The College of Fine Arts offers programs leading to the Bachelor of Arts degree in the fields of Art, Dance, and Theatre, a Bachelor of Fine Arts degree in Theatre, a Bachelor of Music degree in Music, and a Bachelor of Science in Music Education.

Admission to the College
A freshman student may elect to enter the College of Fine Arts as a major in one of the four departments as early as his/her initial entry into the University provided he/she has successfully completed an audition or portfolio review in the appropriate department. At that time, the new freshman should file a Declaration of Major or Change of Curriculum code form indicating the choice of degree program within the College of Fine Arts. However, any continuing student in the University in good standing, upon acceptance by the department, can apply to change from another major to a major in the College of Fine Arts.

The student desiring to make this change must initiate a Change of Major form in the college of the present major and transfer his/her current academic records to the College of Fine Arts' advising office.

Transfer students and students from other units within USF with previous college or university fine arts course credits (art, dance, music, theatre) must have such credits evaluated and meet appropriate portfolio or audition requirements when seeking admission to the College of Fine Arts. These students are urged to make early arrangements for any necessary portfolio reviews or auditions, as well as appointments for advising, since these must take place prior to course scheduling and registration. Further, students are required to provide copies of their transcripts showing all previous college or university coursework for advising, portfolio review and/or audition appointments. Additional information may be obtained and appointments may be made by telephoning or writing the College’s advising office or the office of the department of particular interest.

Advising in the College
The College of Fine Arts operates a central advising office located in the Fine Arts Building. It maintains the records of all major students in the College (art, dance, music, theatre) and provides on-going academic advising, referral services and assistance to all present and potential students. Academic advisers are provided for each of the departments in the College.

Any student in the University, regardless of major, may enroll in courses offered by the college of Fine Arts when prerequisites are met and space is available. Where applicable, these courses may be used to satisfy elective or General Distribution Requirements.

In all cases, the responsibility for meeting all graduation requirements rests entirely upon the student.

Graduation Requirements
The College of Fine Arts currently offers three undergraduate degrees, the Bachelor of Arts (B.A.), attainable in the Departments of Art, Dance, and Theatre, the Bachelor of Fine Arts (B.F.A.) in Theatre and the Bachelor of Music (B.M.) in Music. The University requirements are presented in detail elsewhere in this catalog, but are briefly summarized here along with the college and departmental requirements:

1. 120-124 credits for the B.A., 124-126 credits for the B.M., and 154 credits for the B.F.A. with at least a "C" average (2.0) in work done at the University of South Florida and in the major. At least 40 credits must be in courses numbered 3000 or above. Since 15 hours is considered a normal, full-time load, students are reminded that programs requiring more than 120 credit hours may require additional semesters for completion of the program.

2. General Distribution Requirements may be satisfied by (1) completing the University’s General Distribution Requirements as explained in this catalog, (2) completing the A.A. degree from a Florida Junior or Community College, or (3) completing the general education requirements from another Florida state university. General education courses transferred from other accredited institutions will be evaluated based on USF General Distribution equivalencies. The A.A. degree is in no way a requirement for acceptance into the College of Fine Arts (or into any one of its upper-level degree programs), or a requirement for graduation from the University.

3. Students admitted to the College of Fine Arts with transfer credits dating ten or more years prior to admission (or readmission) will have those credits reviewed by the College and Department and may be required to take specified competency tests in their major area.

4. Special Fine Arts College Requirement: All majors in the College of Fine Arts must take at least 6 credit hours in one or more of the other departments of the College.

5. A maximum number of ROTC credits totaling no more than the maximum allowed in the Free Elective Area for each major may be counted towards the B.A., B.M., or B.F.A. degree.

6. With departmental approval, a maximum of 4 credit hours of elective Physical Education credits taken at USF may be counted as general
elective credit toward the B.A., B.M., or B.F.A. degree in the College of Fine Arts.
7. Satisfactorily complete the College Level Academic Skills Test CLAST and the writing and computation course requirement of GA-10:30 (Gordon Rule).
8. Students applying for a B.A. degree must demonstrate competency in a foreign language as described under Foreign Language Competency Policy of this catalog.
9. Department Requirements:
   Art Requirements: Completion of a minimum of 46 credit hours in the major, 19 credit hours of Free Electives (of which 16 hours in art may apply), and 9 hours of non-major credits which may be distributed at the discretion of the Art Department.
   Dance Requirements: Completion of a minimum of 44 credit hours in the major, 30 credit hours of Free Electives (of which 17 hours in dance may apply), and 9 hours of non-major credits which may be distributed at the discretion of the Dance Department.
   Music Requirements: Completion of a minimum of 84-86 hours in the major.
   Music Education Requirements: For Instrumental Specialization, the completion of a minimum of 19 credit hours of Music Education courses and 52 credit hours of Music courses. For Vocal Specialization, the completion of a minimum of 15 credit hours of Music Education courses and 56 credit hours of Music courses.
   Theatre Requirements: For the B.A., the completion of a minimum of 54-55 credit hours in the major with 24 credit hours of Free Electives of which a maximum of 10-11 credit hours may be in theatre. For the B.F.A., the completion of a minimum of 75 credit hours in the major with 29-30 credit hours of Free Electives of which a maximum of 10-11 credit hours may be in theatre.
10. Residency Requirements: A minimum of 20 credit hours in the major department must be earned in residence. This requirement, however, may be waived by the department based on examination (e.g., portfolio review, audition, etc.). Also, a student must earn 30 of the last 60 hours of credits in residence at the University of South Florida. However, any course work to be taken and any credits to be earned outside of the University must have prior approval from the appropriate department and the college in order to apply these credits toward graduation.
   Waiver of prerequisite course work totaling no more than 12 credit hours in the major or Fine Arts College requirements is possible by demonstration of competence. Unless credit is awarded by approved official tests, i.e., A.P., CLEP, the credit hours must be made up according to the departmental or college recommendations. The review for waiver is by faculty committee. Specific questions concerning program requirements for the B.A., B.M. and B.F.A. degrees in the College or other related problems, should be directed to the Coordinator of Advising, College of Fine Arts, University of South Florida, Tampa, Florida 33620.
   The responsibility for seeing that all graduation requirements are met rests with the student.

Courses for General Distribution Requirements:
Courses in the College of Fine Arts in the departments of Art, Dance, Music and Theatre fall within Area II of the University's General Distribution Requirements. (See General Distribution Requirements and special policies for AA degree holders and other transfer students with "General Education Requirements" met.) However, a major in any one of the four departments in the College of Fine Arts may utilize only those courses in the other three departments of the College for Area II General Distribution Requirements.

College Policy for Academic Progress
The following criteria will serve as the basis for disenrollment from a major in the College of Fine Arts.
1. Grade-point average below 2.0 in the major.
2. Recommendation by major applied (studio) art, dance, music or theatre faculty with approval of respective department chairperson, or art education coordinator.
3. The department may recommend probationary status (rather than disenrollment) for one semester when academic progress is not maintained.

Contracts and Permission Procedures
Directed Studies Contracts:
All Directed Studies and other variable credit courses in the College of Fine Arts require contracts between students and instructors describing the work to be undertaken by the student and specifying the credit hours. These contracts are to be completed in quadruplicate and appropriately signed. It is the student's responsibility to obtain the necessary signatures and make the required distribution of all copies. Important: the student must have his/her signed copy of a contract at the time of registration.
S/U Grade Contracts:
The College of Fine Arts requires that any S/U grading agreement entered into between student and instructor be formalized by a contract in quadruplicate signed by the student and the instructor and distributed according to instructions.
"I" Grade Contracts:
Incompletemust be contracted for by mutual agreement between student and instructor, with the contract describing specifically the amount and nature of the work to be completed for the removal of the incomplete grade. This contract additionally clearly specifies the date that the work will be due (within legal limits) for grading. Both the student and the instructor must sign this contract and the four copies must be distributed according to instructions. A student must not register for a course again to remove an "I" grade.
Permission Procedures:
Admission into some courses is possible only by consent of instructor (CI), consent of chairperson (CC), consent of adviser, or by audition or portfolio review. When such special permission is required, it will be the student's responsibility to obtain any required permission prior to registration.
S/U Grading in the College
1. Non-majors enrolled in courses in the College of Fine Arts may undertake such courses on an S/U basis with instructor approval. See Contracts and Permission Procedures for information concerning S/U Grade Contracts.
2. Credits earned by a non-major student with an "S" grade will not count toward the student's minimum major course graduation requirement should that student ultimately decide to become a major student in one of the four departments in the College. Instead, such credits earned with an "S" grade will be assigned to the student's Free Elective category (with the exception of music which will become non-countable).
3. Although Fine Arts majors may take coursework in their major as Free Electives, they are not entitled to the S/U grading option for these courses taken in their major subject area, even when specifically used or intended to be used as Free Electives.
4. In the college of Fine Arts, the only S/U graded courses available to a major student in his major subject area are those curriculum allowable courses designated S/U (that is, S/U only).
5. With the exception of such courses as may be specifically required under the College's "Special Requirements" regulation, a maximum of 9 credit hours of S/U credits in non-major courses may apply towards a degree in the College of Fine Arts.
   Please refer to Academic Policies section for more information concerning the University's S/U Grading policy.

Dean's List Honors
See Academic Policies and Procedures, Programs and Services.

Interdisciplinary Study
In spite of the fact that an undergraduate interdisciplinary degree program is not formally offered in the College of Fine Arts, it is possible...
for a student to pursue such a program of study in the College by utilizing 400- and 500-level electives allowed in the major program. A student may also choose a double undergraduate major in any two departments within the College of Fine Arts as a means of interdisciplinary study. See the major adviser in the programs of particular interest.

Minors Program

The College of Fine Arts offers minor programs in Art, Dance, Music, Theatre. Majors in the College of Fine Arts may pursue a minor in any certified minors program at USF except within the same department as the major. The requirements for these programs are located under the departmental academic program descriptions. For University Minor Policy, consult that section in Catalog.

PROGRAMS AND CURRICULA

<table>
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<th>ART (ART)</th>
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**Departmental Requirements for the B.A. Degree**

The art curriculum is designed to develop the student’s consciousness of aesthetic and ideological aspects of art and its relationship to life and to assist students in the realization of personal ideas and imagery. Most B.A. recipients in college teaching, museum or gallery work, fine or commercial studio work pursue the extended discipline and experience offered at the graduate level.

Although the Art program allows many possible courses of study, most art majors will select one area of emphasis chosen from the course offerings listed.

The major concentrations, or areas of emphasis, available to undergraduate (B.A. seeking) art students are: Drawing, Painting, Sculpture, Ceramics, Graphics (Lithography and/or Intaglio), Photography, Cinematography (Film), Art History and Theory. Art majors must receive a grade of "C" or better in all art courses.

Transfer studio credit will be accepted on the basis of portfolio and transcript evaluation.

For additional requirements see Graduation Requirements, College of Fine Arts.

The requirements for the bachelor's degree in Art Education are listed under the College of Education.

**Art Studio Concentration**

(46 semester hours minimum)

1. Visual Concepts I, II and Introduction to Art, 12 credit hours.
2. Minimum of 12 credit hours of 3000 level studio courses (exclusive of Technique Seminars.)
3. Minimum of 8 credit hours of 4000 and/or 5000 level studio courses exclusive of Technique Seminars with an emphasis in one area.
4. Minimum of 12 credit hours in art history courses from the following:
   - Twentieth Century art is required of all majors.
   - ARH 4100
   - ARH 4350
   - ARH 4530
   - ARH 4170
   - ARH 4430
   - ARH 4796
   - ARH 4200
   - ARH 4450
   - ARH 4937
   - ARH 4301
5. Art Senior Seminar, 2 credit hours.
6. Maximum of 16 semester hours of art electives.

**Art History Concentration**

(46 semester hours minimum)

1. Visual Concepts I, II and Introduction to Art, 12 credit hours.
2. Minimum of 16 credit hours of 4000 level art history courses including Twentieth Century art history.
3. Seminar in the History of Art History, 4 credit hours.
4. A minimum of 12 credit hours in Directed Readings (1 to 4 semester hours each) and/or Critical Studies in Art History (4 semester hours each).
5. Art Senior Seminar, 2 credit hours.
6. Must demonstrate competency in French or German as described under Foreign Language Competency Policy of this catalog.
7. A maximum of 16 semester hours of art electives.

For more specific information concerning this requirement, the student should consult with the art adviser or the faculty of the art history area of the art department.

**Requirements for a Minor in Art**

(20 semester hours minimum)

1. Studio Concentration:
   - ART 2202C (4)  ART 2203C (4)  ARH 3000 (4)
   - Plus: Two 4 semester hour classes from 3000 studio level (8)
2. Art History Concentration:
   - ART 2202C (4)  ART 2203C (4)  ARH 3000 (4)
   - Plus: Two 4 semester hour classes from any of the following:
     - ARH 4100 (4)  ARH 4301 (4)  ARH 4450
     - ARH 4170 (4)  ARH 4350 (4)  (Required) (4)
     - ARH 4200 (4)  ARH 4430 (4)  ARH 4450 (4)

**Visiting Artists and Artist-In-Residence**

The art department is widely known for the consistent level of excellence of its programs. Aside from the contributions of its permanent staff, and to insure the continuing expansion of learning opportunities available to students, the art department has brought to the campus internationally known artists and lecturers such as Scott Ballett, Larry Bell, Lucas Samaras, Robert Irwin, James Rosenquist, Robert Rauschenberg, Philip Pearlstein, Edward Fry, Alice Aycock, Alfred Leslie, Linda Benglis, Ron Gorochov, Paterson Sims, Jack Burnham, Barbara Kuger, Jim Dine, Donald Kuspsit and Robert Storr.

**ART MUSEUM**

The USF Art Museum presents a schedule of changing contemporary exhibitions in the Museum (FAM), in the Teaching Gallery in the Fine Arts building (FAH), and in the lobbies of Theatres I and II. The Art Museum has two triangular exhibition galleries and an open access collection storage area.

The art collection of the University of South Florida is composed of original graphics, drawings, photographs, and African and Pre-Columbian artifacts. Many of the prints and sculpture multiples in the collection were produced at USF’s internationally recognized Graphic Studio established in 1968. Selections from this collection are loaned through the Art Bank program to museums and institutions throughout the United States.

The exhibition program focuses on contemporary American and European art and also showcases the work of faculty, students and alumni. The exhibitions and art collection serve as an integral part of the studio and art history curriculum of the Art Department and offer an opportunity to other liberal arts students to test and broaden their perceptual and analytical abilities. Brochures and catalogues of major exhibitions are published by the Art Museum and includes scholarly critical essays by leading curators and scholars. Educational programs are offered by the University and Tampa Bay community.

**DANCE (DAN)**

The dance curriculum is designed for students interested in dance as an art form. Their objectives may be to pursue a career as a performer and/or choreographer, continue their education in graduate school, or to teach in a college, public or a private school.

Concerts are presented each semester as well as workshop performances. Noted professional dancers and companies perform on campus and in the community providing students with the opportunity of studying with visiting artists.
## Requirements for the B.A. Degree

### Performance Concentration

**MODERN CONCENTRATION**

(44 semester hours minimum)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DAA 2204</td>
<td>Ballet II</td>
<td>3</td>
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<tr>
<td>DAA 3700</td>
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<td>Choreography II</td>
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<td>Music for Dance II</td>
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<td>DAN 3480</td>
<td>Performance</td>
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<td>Practicum in Dance Prod I</td>
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<td>Survey History of Dance</td>
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</tr>
<tr>
<td>DAN 4112</td>
<td>19 &amp; 20th Century Dance History</td>
<td>3</td>
</tr>
<tr>
<td>DAN 4170</td>
<td>Dance Senior Seminar</td>
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<tr>
<td>DAN 4906</td>
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</tr>
<tr>
<td>DAN 4790</td>
<td>Senior Project</td>
<td>1</td>
</tr>
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**BALLET CONCENTRATION**

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<td>Modern Dance II</td>
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<tr>
<td>DAA 3700</td>
<td>Choreography I</td>
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<tr>
<td>DAA 3105</td>
<td>Modern Dance III</td>
<td>3</td>
</tr>
<tr>
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<td>Choreography II</td>
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<td>DAA 4702</td>
<td>Choreography III</td>
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<td>Music for Dance II</td>
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<td>Performance</td>
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<td>Ballet Variations</td>
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</tbody>
</table>

### Dance Minor Program

A minimum of 20 hours is required for a dance minor. Five hours must be in DAN courses. Ten of the 20 hours must be upper level (3000 and 4000) courses. Studio Dance courses can be repeated only once toward minor degree.

#### Courses for Lower Level

Select from:

- **Theatre Dance Styles**: DAA 2000 (2)
- **Introduction to Dance - 6A**: DAN 2100 (3)
- Modern I: DAA 2100 (2)
- Modern Dance II: DAA 2160 (3)
- Ballet I: DAA 2200 (2)
- Ballet II: DAA 2201 (3)
- Fundamentals of Jazz Dan: DAA 2500 (2)
- Music for Dance I: DAN 2610 (2)
- Music for Dance II: DAN 2611 (2)
- Dance Improvisations: DAA 2704 (2)

#### Courses for Upper Level (minimum of 10 hours required)

Select from:

- Movement Theory & Body Alignment: DAA 3060 (2)
- Modern Dance III: DAA 3166 (3-4)
- Ballet III: DAA 3202 (3-4)
- Ballet Variations: DAA 3220 (1)

### Performance

- Jazz Dance: DAA 3480 (1)
- Jazz Theatre Dance: DAA 3502 (2)
- Practicum in Dance Production: DAN 3590 (1)
- Choreography I: DAA 3700 (2)
- Choreography II: DAA 3701 (2)
- Survey Hist of Dance - 6A: DAN 4111 (3)
- 19th & 20th Century Dance: DAN 4112 (3)
- Modern Dance IV: DAA 4106 (4)
- Ballet IV: DAA 4206 (4)
- Teaching of Dance: DAA 4300 (1)
- Choreography III: DAA 4702 (2)
- Choreography IV: DAA 4703 (2)
- Selected Topics in Dance:
  - 1. Massage for Dance: DAA 4930 (1)
  - 2. Movement Lab

### Department Policy for Academic Progress

- A maximum of 17 credit hours of Dance electives may apply toward the dance degree. TPA 2232 or 2223 Theatre Crafts: Lighting, or Costume (3) is required of all dance majors and may apply toward Area II of the General Distribution Requirements, or non-major electives, or the 6 hour Special College Requirement.
- Dance majors must enroll for at least a minimum of 2 credit hours (1 per semester) in DAN 3590 Practicum in Dance Production. By doing technical preparation and working backstage in a minimum of two major concerts, the student will have a better grasp of production problems and their solutions. The major student is expected to earn 2 credits in DAA 3480 Performance performing in at least two faculty directed concerts in their junior or senior year.
- Junior dance majors are required to complete a junior research project through directed studies (DAN 4906) and senior dance majors are required to choreograph a group work and perform a solo as a senior project.
- Entrance to all major technique courses is by faculty audition. Until the student is accepted into Modern Dance III or Ballet III he/she will be considered as a probationary dance major. DAA 2104 or DAA 2204 may be repeated only once for credit towards degree requirements.
- Prospective Majors are urged to contact the dance department to arrange for an audition prior to registration.

### Critiques

1. All students will be evaluated periodically at faculty sessions as well as critiqued per semester. Majors will be advised accordingly.
2. If the faculty feels that a student is deficient in some area which necessitates a probationary action, the student in question will be considered as a probationary dance major. DAA 2104 or DAA 2204 may be repeated only once for credit towards degree requirements.
3. Failure to make satisfactory progress within the following semester shall constitute grounds for Departmental recommendation to drop and discontinue the major.

### Minimum Grade for Dance Courses

A student must receive a "C" grade or better in required major courses. Should a student fail to do so, the course(s) in which the student received a "D" or "F" must be repeated and a "C" grade or better earned.

### Additional Standards

In addition to meeting the specific requirements and standards discussed above, the student and adviser will periodically evaluate the
student's general progress. A less-than-satisfactory rating in one or
more of the following areas could place the student on probation. A
student on probation is given a specific amount of time to achieve a
satisfactory rating before being dropped from the major program. The
criteria are:
1. Adequate technical skill and adaptability.
2. Evidence of creative potential.
3. "B" average in major studio classes.
4. Good health which includes adequate control of body weight.

Class probation and department probation require review and final
determination at the end of the subsequent semester. Students will be
notified of the results of final faculty review, i.e., reinstatement in good
standing or recommendation to drop major.

A dance major is expected to keep his/her weight at a
healthy level, as necessary to maintain adequate
physical and mental fitness. Good health
includes good nutrition, adequate
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6. Evidence of creative potential.
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Jazz Studies-Performance Concentration

The following courses are required in addition to the core requirements:
- MUT 3663 (2) MUT 3664 (2)
  Applied music (major) through the 3000 level (min. of 24 hours).
In addition to the major instrument Jazz Bass and Jazz Guitar majors
are required to enroll for 4 credits in the corresponding double bass or
classical guitar applied music lessons in addition to the major applied
studies.

Jazz piano proficiency

Jazz Studies-Composition Concentration

The following courses are required in addition to the core requirements:
- MUC 4203 (6) MUC 2202 (3) MUC 3203 (3)
- MUC 2201 (3) MUC 3202 (3)
  Applied music (principal) with a minimum of 4 hours at the 2000
  level (min. of 8 hrs.)
In addition to the principal applied music study Jazz Bass and Jazz
Guitar majors are required to enroll for 2 credits in the corresponding
double bass or classical guitar applied music lessons in addition to the
principal applied studies.

Jazz piano proficiency

Elective composition (6)

Composition Concentration (72 semester hours minimum)

- All students seeking a degree in music with a composition concen-
tration are required to fulfill the senior composition requirements (with
the approval of the entire composition faculty) in one of the following
ways; (a) a complete public performance of works by the student
composer, (b) the public performance of several compositions in
various concerts throughout the composer's senior year, (c) the formal
presentation to the composition faculty of an extensive portfolio of
compositions plus the public performance of at least one of these
works during the senior year, or (d) in other ways designated by the
composition faculty.

Major Ensemble (4)

- All undergraduate students enrolled in applied music for 2 credit
hours are required to be enrolled concurrently in a major ensemble
appropriate to their performing medium.

Applied Music (Principal) (8)

- A minimum of 8 credit hours of applied music is required with a
minimum of 4 credit hours at the 2000 level and concurrent registration
in MUS 3001 (recital attendance).

Composition Courses (30)

- Undergraduates concentrating in composition must complete a
minimum of 24 credit hours from the following sequence of courses
including MUC 3402, and at least one semester of MUC 4204, satisfying
all necessary prerequisites for all courses:
  - MUC 2201 (3,3) MUC 3401 (3) MUC 3411 (2)
  - MUC 3202 (3,3) MUC 3402 (3) MUC 4312 (2)
  - MUC 4203 (3)

  and a minimum of 5 hours selected from
  - MUC 2301 (2) MUC 3601 (3) MUC 4406 (3)
  - MUC 3441 (3) MUC 3602 (3) MUC 4501 (2)
  - MUC 3442 (3) MUC 4405 (3) MUC 3353 (3)

- For other degree requirements for all the above concentrations, see
Fine Arts College requirements and the University's General Distribu-
tion and graduation requirements.

MUSIC EDUCATION

Requirements for the B.S. Degree (MUE):

The music education curriculum is designed to serve students who wish
to develop a high level of musical expertise and have a commitment to
help develop similar musical potential in other people.

- All students seeking a degree in music education are required to pass
an audition in their respective performance area and to take a
music theory placement test prior to registering for any music theory
class. Students who do not pass the diagnostic test will be placed in
a music fundamentals course which does not fulfill a requirement in the
music major curriculum. All transfer students are required to take a
theory placement test and enter at the appropriate level of study.
Students may obtain the dates for these examinations from the music
office.

- Special requirements for all music education majors; successful
completion of the piano proficiency requirements as defined by the
music and music education faculties; participation in a major perform-
ing ensemble each semester the student is enrolled in applied music;
and the presentation of a one-half hour recital in the major performing
medium during the last semester of enrollment in applied music.

- Students are to present a record of satisfactory recital attendance
through registration in MUS 3001 (see the specific requirements for
MUS 3001 as set by the music faculty).

- For other degree requirements see College of Education require-
ments and the University's General Distribution and graduation re-
quirements.

Note exceptions applicable to this program.

1. Instrumental Specialization (72 cr. hrs.)

- Music Education courses (20 cr. hrs.)
  - MUE 2090 (1) MUE 3450 (1)*
  - MUE 3421 (1) MUE 3451 (1)
  - MUE 3422 (1) MUE 3460 (1)**
  - MUE 3423 (1) MUE 3461 (1)

- Music courses (min. 52 cr. hrs.)
  - MUC 1111 (3) MUC 2117 (3)
  - MUC 1112 (3) MUC 2246 (1)
  - MUC 1241 (1) MUC 2247 (1)
  - MUC 1242 (1) MUL 2111 (3)
  - MUC 2116 (3)

- Applied Music (Principal) 12 cr. hrs. with a minimum of 4 hours at the
  3000 level and concurrent registration in MUS 3001.

- Music electives (2)

- Applied Music Secondary (Techniques - 3 cr. hrs.)
  - One each: string, percussion, voice

- Major performing ensembles
  - (Minimum of one per semester of applied music - 6 cr. hrs.)

- Graduating recital

- Piano proficiency requirement

Other Fine Arts Requirement

- Art, Dance, Theatre (min. 3 cr. hrs. to be selected from one or more of
  the other departments of the College of Fine Arts)

2. Vocal Specialization (72 cr. hrs.)

- Music Education courses (16 cr. hrs.)
  - MUE 2090 (1) MUE 3423 (1)
  - MUE 3421 (1) + MUE 3450 (1) or 3451 (1)*
  - MUE 3422 (1) MUE 3460 (1) or 3461 (1)*
  - MUE 4331 (3) MUE 4311 (3)

- Music courses (min. 56 cr. hrs.)
  - MUC 1111 (3) MUC 2116 (3)
  - MUC 1112 (3) MUC 2117 (3)
  - MUC 1241 (1) MUC 2246 (1)
  - MUC 1242 (1) MUC 2247 (1)
  - MUG 3101 (2)

- Applied Music (Principal) 12 cr. hrs. through with a minimum of 4 hours
  at the 3000 level and concurrent registration in MUS 3001.

- Applied Music Secondary (Techniques 2 cr. hrs.)
  - One each: string, percussion

- Major Ensembles
  - (Minimum of one per semester of applied music - 6 cr. hrs.)
Music Electives (7)
- Piano proficiency requirement
- Graduating recital

Other Fine Arts Requirement
- Art, Dance, Theatre (min. 3 cr. hrs. to be selected from one or more of the other departments of the College of Fine Arts)

3. General Music Specialization (72 cr. hrs.)

Music Education courses (16 cr. hrs.)
- MUE 3460(1) or MUE 3461(1)*
- MUE 3450(1) or MUE 3451(1)*
- MUE 2090(1) or MUE 4352(3)
- MUE 3421(1) or MUE 4311(3)
- MUE 3422(1) or MUE 4330(3)
- MUE 3423(1)

* Must be taken up to two hours.

Music Courses (min. 56 cr. hrs.)
- MUT 1111(3)
- MUT 1123(3)
- MUT 1241(1)
- MUT 1242(1)
- MUG 3101(2)
- MUG 3460(1)
- MUG 3461(1)
- MUE 2090(1)
- MUE 3421(1)
- MUE 3422(1)
- MUE 4330(3)
- MUE 4352(3)
- MUE 4311(3)

Applied Music Principal 12 cr. hrs. with a minimum of 4 hours at the 3000 level and concurrent registration in MUS 3001.

Applied Music Secondary Techniques (2 cr. hrs.)
- Major Ensembles (minimum of one per semester of applied music - 6 cr. hrs.)
- Major electives (7)
- Piano proficiency requirement
- Graduating recital

Other Fine Arts requirement
- Art, Dance, Theatre (min. 3 cr. hrs.) to be selected from one or more of the other departments of the College of Fine Arts)

Requirements for a Minor in Music
(19-23 semester hour minimum)

Students seeking a minor in music may choose from three concentrations: (1) History-Theory-Literature, (2) Applied Medium and (3) Composition. Each of the concentrations will include the same core curriculum consisting of 11 hours.

1. Core Curriculum:
- Music Theory (8)
- Introduction to Music Literature (3)
- or Music History (3)

2. Optional Concentrations:
   a. History-Theory-Literature
   - Music History and/or Theory and/or Literature (7-8)
   - Music Ensemble (2)
   b. Applied Music (Principal)
   - Performance Studio courses which may include up to 2 semester hours of class-studio (6-8)
   - Music Ensembles (2-4)
   - MUS 3001 Recital Attendance concurrent with applied music (principal) registration.
   - Faculty jury recommendations for sophomore-level studio study (minimum)
   c. Composition
   - Introduction to Electronic Music (2)
   - Composition Studio courses which may include one course of orchestration (6)
   - Music Ensemble (1)

3. Admission to all studio courses is by audition. Class or studio courses may serve as preparation for auditions. Registration in all music courses is by permission of the instructor. Studio courses may be repeated for credit as stipulated in the Catalog.

The Faculty:
USF's superior music faculty has been carefully chosen for its training, performing ability, and ability to teach. It is in every sense a team. This achievement has been demonstrated by such fine musical ensembles as the Faculty String Quartet, the Ars Nova (faculty) Wind Quintet, the Faculty Musart Piano Trio and the Faculty Jazz Quartet. USF music graduates are found teaching successfully in public schools and universities around the country and performing in a variety of concert settings.

Student Organizations:
Sigma Alpha Iota, national professional music fraternity for women, and Phi Mu Alpha Sinfonia, a professional music fraternity for men, are dedicated to serve the cause of music in America. College Music Educators National Conference is an affiliate of the Music Educators National Conference and is open to all interested students.

Financial Aid:
The University has made available to highly qualified undergraduate students a number of music service awards. Awards are made following open auditions held in January, February, and March. The award is made for the following year for two semesters. Out-of-state tuition waiver is also possible. Also available are scholarships awarded in specified areas including Dawn Randall Zimmerman Flute Scholarship, Mary Corey Bogdonas Scholarship, Steve Penovitch Scholarship, Marjorie Roe Cello Scholarship, the Zbar Piano Award, and the V. A. Bridges Music Education Scholarship. Additionally, loans, grants and work programs are available to qualified University of South Florida students. Financial aid is granted on need, academic promise and talent.

SYCOM
The Systems COMplex for the Studio and Performing Arts exists to provide essential instructional services and state-of-art reproducing, mixing, editing, and electronic sound generating and processing equipment (digital and analog) for development and implementation of explorative research and creative activity by artists, scientists, and students (generally enrolled in related classes) at USF.

Written proposals for individuals or group project to be sponsored or subsidized by SYCOM and/or extramural granting agencies should be submitted for consideration to the director of SYCOM. The subsequent results of project activities will be exhibited in the form of public lectures, performances, reports, publications, or large theatrical events and special workshops.

Unique Learning Opportunities:
The music department at the University of South Florida offers the student the opportunity to study with a distinguished faculty, work with the newest in creative equipment, and to be in the company of other superior music students for an extensive, exciting and exciting period of study. In addition to the already established programs in the music education, choral, orchestral and wind ensemble areas, opportunities are now available in jazz with performances with the jazz ensemble and chamber jazz ensembles, a full range of jazz courses and professional playing opportunities in the area.

Visiting Artists and Artists-in-Residence
The Department of Music utilizes guest composers, conductors, and performing musicians to enhance its offerings in terms of teaching faculty, forum appearances, and the conducting of musical programs, symposia, and clinics. Some prominent musicians who have appeared in the past are:
- Norman Dello Joio
- Randall Thompson
- Virgil Thompson
- Walter Trampler
- Fred Hemke
- Oly Wilson
- Guarneri String Quartet
- Beaux Arts Trio
- Boris Goldovsky
- Gregg Smith
100 COLLEGE OF FINE ARTS

Theatre (TAR)

The Department Major:

Through its curriculum and production program, the Department of Theatre offers seriously interested students the opportunity to prepare themselves for a professional career in the Theatre or to continue their studies at the graduate level. In addition, students from other departments and colleges have the opportunity to study and participate in the work of the department, thereby allowing them to gain insight into the creative experience of theatre.

After a thorough orientation to all facets of the art gained in the basic courses, the theatre major pursuing the Bachelor of Arts degree selects one of the following areas of study: Performance, Design, Theatre Arts, or Theatre Education. To allow for greater preparation in design, a Bachelors of Fine Arts degree in Design is offered. The department also offers a minor in Theatre. For advanced upper level students a Theatre Honors Program of specialized courses is offered, often involving guest artist residencies.

Through the production program, which includes a variety of performances for the university community and the general public, the student is encouraged to participate in all aspects of theatre practice. The Department also offers opportunities to the advanced student to work with visiting professional companies.

Visiting Artists and Artists-in-Residence:


Requirements for the B.A. Degree with a major in Theatre

Of the total 124 credit hours needed for graduation in the Performance, Design, or Theatre Arts areas, the student following a Performance area must take a minimum of 54, and the student following the Design area or Theatre Arts area must take a minimum of 55 credit hours within the Department of Theatre. In addition, a maximum of 11 credit hours (Performance) and a maximum of 10 credit hours (Design or Theatre Arts) may apply to the theatre electives area. Of the 137-140 total credit hours needed for graduation in the Theatre Education area, the student must take a minimum of 54 credit hours within the Department of Theatre and a minimum of 37-40 credit hours within the College of Education.

The student may choose one of four areas for the B.A. degree: Performance, Design, Theatre Arts, or Theatre Education. Common to all is the following core:

Core Curriculum (35 hours)

First Year (11 credit hours)

THE 2020 2 credit hours
TPA 2223 3 credit hours or TPP 2110 3 credit hours

Second Year (10 credit hours)

THE 3110 4 credit hours
TPA 3086 3 credit hours

Third Year (8 credit hours)

Choice of two:
THE 4320 3 credit hours
THE 4370 3 credit hours
THE 4442 3 credit hours
plus 2 credits of THE 3825 for Pi*

Fourth Year (6 hours)

Choice of one:
THE 4180 4 credit hours
plus 2 credits of THE 4927 for Pi*

+All Theatre Majors must complete 4 Pi's (Production Involvement) as part of their graduation requirements. Pi's must be taken under:
THE 3925 Production Involvement 1 credit hour and/or
THE 4927 Advanced Production Involvement 1 credit hour
for a total of four (4) hours. Students may register for Pi credit in the second semester of the Sophomore year and are expected to register each consecutive semester until completion of four involvements. A graduation requirement.

All students desiring admittance into the Scene Study sequence must audition and those entering the upper level Design sequence must have a portfolio review.

Required Courses for Areas of Study:

Performance Area
(54 hours minimum with core) - 19 hours as follows:

Second Year (4 hours)
TPP 3500 2 credit hours
TPP 3790 2 credit hours

Third Year (6 hours)
TPP 4140 3 credit hours
TPP 4150 3 credit hours

Fourth Year (7 hours)
TPP 4152 4 credit hours
TPP 4920 3 credit hours

Design Area
(55 hours minimum with core) - 20 hours as follows:

First Year (3 hours)
Complete Theatre Crafts sequence with TPA 2223 or TPA 2232

Second Year (3 hours)
TPA 4211 3 credit hours
ART 3301 4 credit hours

Third Year (6 credit hours)
Choice of 2 depending on choice of design area:
TPA 3221 3 credit hours or THE 4264 3 credit hours or
THE 4266 3 credit hours

Fourth Year (8 credit hours)
Choice of 2 depending on design area:
TPA 4020 4 credit hours
TPA 4040 4 credit hours
TPA 4060 4 credit hours

The student may choose one of four areas for the B.A. degree: Performance, Design, Theatre Arts, or Theatre Education. Common to all is the following core:

Core Curriculum (35 hours)

First Year (11 credit hours)

THE 2020 2 credit hours
TPA 2223 3 credit hours or TPP 2110 3 credit hours

Second Year (10 credit hours)

THE 3110 4 credit hours
TPA 3086 3 credit hours

Third Year (8 credit hours)

Choice of two:
THE 4320 3 credit hours
THE 4370 3 credit hours
THE 4442 3 credit hours
plus 2 credits of THE 3825 for Pi*

Fourth Year (6 hours)

Choice of one:
THE 4180 4 credit hours
plus 2 credits of THE 4927 for Pi*

+All Theatre Majors must complete 4 Pi's (Production Involvement) as part of their graduation requirements. Pi's must be taken under:
THE 3925 Production Involvement 1 credit hour and/or
THE 4927 Advanced Production Involvement 1 credit hour
for a total of four (4) hours. Students may register for Pi credit in the second semester of the Sophomore year and are expected to register each consecutive semester until completion of four involvements. A graduation requirement.

All students desiring admittance into the Scene Study sequence must audition and those entering the upper level Design sequence must have a portfolio review.

Required Courses for Areas of Study:

Performance Area
(54 hours minimum with core) - 19 hours as follows:

Second Year (4 hours)
TPP 3500 2 credit hours
TPP 3790 2 credit hours

Third Year (6 hours)
TPP 4140 3 credit hours
TPP 4150 3 credit hours

Fourth Year (7 hours)
TPP 4152 4 credit hours
TPP 4920 3 credit hours

Design Area
(55 hours minimum with core) - 20 hours as follows:

First Year (3 hours)
Complete Theatre Crafts sequence with TPA 2223 or TPA 2232

Second Year (3 hours)
TPA 4211 3 credit hours
ART 3301 4 credit hours

Third Year (6 credit hours)
Choice of 2 depending on choice of design area:
TPA 3221 3 credit hours or THE 4264 3 credit hours or
THE 4266 3 credit hours

Fourth Year (8 credit hours)
Choice of 2 depending on design area:
TPA 4020 4 credit hours
TPA 4040 4 credit hours
TPA 4060 4 credit hours
The Theatre Arts area is intended for the student who, in consultation with the Theatre Advisor, wishes to construct his/her own degree program from a broad spectrum of theatre courses. In addition to courses in performance and design, areas of study available are Puppetry, Playwrighting, Stage Management, Directing, Literature and Criticism.

(55 hours minimum with core) - 20 hours as follows:
Two credit hours from any of the Performance sequence of courses (TPP) plus eighteen hours to be selected from the Theatre Department's course offerings.

Theatre Education Area
The Theatre Education area prepares students for the Florida Drama Teaching Certification exam for Grades 6-12. In addition to Department of Theatre requirements students must meet the College of Education's upper level entrance requirements and complete 37-40 credit hours in Education.
(54 hours minimum with core in Theatre Department)
19 hours as follows:

First Year (3 hours)
Complete Theatre Crafts sequence with TPA 2223 or TPA 2232

Second Year (8 hours)
TPP 3500 or TPP 3790 2 credit hours
Complete 8 credit hours from the following:
TPA 2250 1 credit hour TPA 3221 3 credit hours
TPA 3260 3 credit hours TPA 3601 2 credit hours
TPA 4211 3 credit hours THE 4264 3 credit hours

Third year (6 hours)
TPP 4150 3 credit hours TPA 4310 3 credit hours

(37-40 hours minimum in College of Education)
Foundations (9 hours)
EDG 3450 3 credit hours EDF 3604 3 credit hours
EDG 3621 3 credit hours EDF 3604 3 credit hours

General Methods (9 hours)
EDG 4320 3 credit hours THE 4723 3 credit hours
THE 4723 3 credit hours THE 4722 3 credit hours

Special Methods (7-10 hours)
RED 4337 2 credit hours EDF 4430 3 credit hours
EEC 4070 2-3 credit hours EME 4402 2 credit hours

Practical Experience (12 hours)
EDG 4940 10 credit hours EDF 4936 2 credit hours

Freshman Lab and Production Involvement:
TPA 2200, TPA 2223 and TPA 2232 have a weekly 4 hour laboratory (LAB) in addition to weekly lectures (3 hours).
Beginning with the second semester of the sophomore year, the Theatre major is expected to enroll each succeeding semester in either THE 3825 or THE 4927 (1 credit). All theatre majors must satisfy four PI's before they are approved for graduation. The PI's are assigned by the faculty and are usually construction or running crews or performance assignments. Each assignment entails a minimum of 55 hours.

Requirement for a Minor in Theatre
(23 hours minimum):
TPA 2223 3 credit hours TPA 2232 3 credit hours
TPA 2232 3 credit hours TPP 2110 3 credit hours
TPA 2200 3 credit hours THE 3925 1 credit hour
THE 4927 1 credit hour

The remaining 10 hours are to be selected by the student with the advice of the theatre advisor. At least 9 hours must be upper level courses. The Theatre Advisor will be available to assist the student in developing a course of study that will meet the needs of the individual student.

Students desiring admittance into the Scene Study sequence must audition and those entering the upper level Design sequence must have a portfolio review.
All Theatre Minors must complete 2 PI's (Production Involvement) as part of their graduation requirements. PI's must be taken under: THE 3925 - Performance 1 credit and/or THE 4927 - Advanced Performance 1 credit hour for a total of two (2) hours. Students may register for PI credit in the second semester of the Sophomore year and are expected to register each consecutive semester until completion of two involvements.

Requirements for the B.F.A. Degree in Design:
The student should submit a letter of application as early as the second semester of the Junior year. This should be accompanied by a transcript and a detailed description of production involvement.

Admission to the B.F.A. program is by audition or portfolio presentation and acceptance by the Design faculty committee.
As soon as the B.F.A. candidate has been accepted into the program, the Chairman of the Theatre Curriculum Committee in conference with the student and with the approval of the department chairman will select the student's Advisory Committee. The Advisory Committee will be composed of three members of the Theatre faculty. This committee has the responsibility to develop a curriculum designed to meet the specific needs of the student and will decide if the following requirements have been met and appropriate standards maintained:
Completion of the appropriate Department of Theatre B.A. requirements.
Development and execution of a creative project.
Participation in one summer session.
A minimum of 30 credit hours above the B.A. including 6 credits of non-theatre electives. (Theatre courses taken prior to the appointment of the B.F.A. Advisory Committee and without the advice of the Committee cannot be considered part of the B.F.A. program.)

Design Concentration
7 hours in Creative Project and Execution:
THE 4905 or THE 5909 (Research & Design Creative Project) (4 credit hours) and
TPA 4012 Project Design: Honors (3 credit hours)
Complete three area of design and prerequisite (7 credit hours) 10 credit hours of additional electives of which 6 must be outside the Department of Theatre.
PLUS 6 credit hours.
TPP 4310 Directing I (3 credit hours)
THE 4900 Directed Reading (3 credit hours)

Honors Program
The Honors Program is available to upper level majors who have a 3.0 overall GPA in the major, and who have achieved a comparably high level of artistic and/or scholarly achievement. A 6-8 credit one-year sequence of courses is offered to students accepted into the Honors Program.
THE 4593 2 credit hours
THE 4594 3 credit hours
THE 4595 1-3 credit hours
Beginning in the Fall of 1990, the University of South Florida will establish a College of Arts and Sciences that will consist of the combined colleges of Arts and Letters, Natural Sciences, and Social and Behavioral Sciences. In addition, the Bachelor of Independent Studies program will be moved from the School of Extended Studies and Learning Technologies to the new College.

Students in the College of Natural Sciences are trained in the tools of logical analysis and the modes of experimentation in the continuing attempt to better understand the nature of man and his relationship to the universe. In all its functions the College is dedicated to fostering a spirit of inquiry and intellectual growth.

The College of Natural Sciences offers programs in biology, including botany, microbiology, and zoology; chemistry; geology; marine science; mathematics; medical technology; and physics. These programs are designed for students planning scientific careers in the science fields or for those planning professional health careers having a considerable component of science. These students will typically major in one of the sciences or in a combination of sciences as preparation for employment, or admission to professional or graduate schools.

In addition, the college administers advising for the medical technology and clinical chemistry degree program. These programs combine specialized counseling and curriculum planning to assist the student in gaining admission to internship programs.

**BACCALAUREATE LEVEL DEGREE PROGRAMS**

**Admission to the College**

To be admitted to the College of Natural Sciences a student must make written application. Upon admission, the student will be assigned a faculty advisor for counseling and program planning. Students preparing for a science or mathematics career must plan their courses carefully because of the sequential nature of the science curriculum, and students seeking entrance into a professional school or medical technology internship program require specialized counseling. Because of this, immediate application for admission into the college is strongly recommended.

Information on admission criteria, departments, majors, programs, counseling, and other services of the college may be obtained from the Office of the Dean, College of Natural Sciences, University of South Florida, Tampa, Florida 33620.

**General Requirements for Degrees**

In addition to the University graduation requirements, the requirements for graduation in any undergraduate degree in the college are as follows:

1. Completion of a major program with a grade of "C" or higher in each course. A major program is defined to be courses in a department of concentration plus supporting courses in related departments. All courses in the major program must be taken with letter grade (A, B, C) except those courses which are graded S/U only. For a more detailed description of the major program requirements, consult the appropriate departmental section. Certain courses offered in the college are designed for the non-science major or the non-departmental major. These courses are designated "For non-major," "No credit for (department) major," "No credit for science majors," or some similar phrase. For these courses the following rules apply: "For non-majors." For majors in the college, the course will count as credit toward graduation only as a free elective.

   "No credit for (department) major" - the course will not count toward graduation for a science major in the specified department, but will count towards graduation as a free elective for all non-specified departments.

   "No credit for science majors" - the course will not count toward graduation for any major in the college.

2. Satisfaction of the University General Distribution Requirements, except:

   a. In area III, the minimum requirement of six hours in mathematics may be waived by credit in at least six hours of Mathematics courses required by the major.

   b. In area IV, the minimum of six hours in Natural Sciences may be waived by credit in at least six hours of natural sciences courses required by the major.

3. Completion of the College of Natural Sciences Liberal Arts Electives Requirements. This is 15 hours of courses from the Colleges of Fine Arts, Social and Behavioral Sciences, or Arts and Letters beyond the required University General Distribution Requirements. The student may elect any course from any of these colleges provided:

   a. No more than 9 hours are taken in courses in any one department.

   b. The courses are taken with letter grades (A,B,C,D). Courses taken to satisfy the University General Distribution Requirements may not be used to satisfy this requirement. However, "Gordon Rule" writing courses may be used, if not used in General Distribution Requirements.

4. Subsequent to admission to the college, a student must complete at least 30 credit hours of letter graded courses in the college, of which at least 12 hours must be applicable to a major. Up to 2 credits of elective physical education, and up to 9 credits in military science courses MIES 1000, 3404, 4421C may count as free electives toward graduation. Credits transferred from other schools will not be included in the grade point average computed for graduation. For graduation with honors, see section in Academic Policies and Procedures.

   The college or department in the college may have specific requirements in addition to those listed in this catalog. College rules or requirements are on file in the dean's office, and departmental rules or requirements are on file in each department office. The student is responsible for meeting all graduation requirements.

5. Satisfactory completion of the College Level Academic Skills Test and the writing and computation course requirements of State Rule 6A-10.30.

**Grading Systems**

The College of Natural Sciences will provide some evaluation of performance in all structured undergraduate courses prior to the drop deadline.

Typically, courses in the University receive letter grades (A, B, C, D, F, I). However, the college recognizes that educational competence may be achieved and demonstrated by experiences other than classroom attendance leading to letter grades. The attention of the student is directed to the following:

1. CLEP and other advance placement examinations.
2. Waiver by either documentation or examination.
3. Off-Campus Term programs.
4. Cooperative Education Program.
5. Independent Study

a. With the exception of courses graded S/U only, all courses required to satisfy the departmental major and all supporting science courses are considered in the student's major program and may not be taken S/U. However, once the requirements of the major program have been satisfied, subsequent courses taken in the major or supporting areas are considered free electives and may be taken S/U. All hours required to complete the Liberal Arts Elective Requirement of 15 hours must be taken by letter grade.

b. With the exception of ENC 1101 and ENC 1102, all courses in the General Distribution Requirements and all courses in free electives may be taken S/U. There is no restriction regarding the number of hours to be taken S/U except the graduation requirement that the student must earn at least 30 credit hours with letter grades in the College of Natural Sciences subsequent to formal admission to the college.
c. Students will be permitted to enroll in a course for an S/U on the basis of a written contract signed by the student and the instructor of the course. This contract must be completed no later than the third week of the Fall, Spring, and Summer C terms, and by the end of the second week of Summer A and B terms.

d. Each instructor for courses in the College of Natural Sciences will provide students with requirements necessary to attain an "S" grade. Essentially, "S" is equal to a "C" or better.

e. Students transferring from any other college/division of the University will be subject to the above requirements.

PREPROFESSIONAL SCIENCES

The University of South Florida is an excellent location to prepare for a health profession. The Veterans Administration Hospital, University of South Florida Medical Center, Shriners' Hospital for Crippled Children, H. Lee Moffitt Cancer Center and Research Institute, University of South Florida Mental Health Institute, and University Community Hospital are within walking distance of the campus and offer students excellent opportunities for observation, research, and experience.

The College of Natural Sciences offers programs designed to prepare students for admission to professional schools of medicine, osteopathic medicine, dentistry, optometry, podiatric medicine, and veterinary medicine. Usually these professions require four years of preprofessional preparation followed by four years of training in a professional school. A few well prepared students with exceptional qualifications may be admitted to some professional schools as early as the completion of the junior year of preprofessional work. The preprofessional programs do not meet requirements for a degree. Students should plan to also complete a degree while at USF because professional schools prefer students with a bachelor's degree, although they do not specify the choice of major. Most preprofessional students major in the sciences because of their interests in the health sciences, and because of the considerable overlap between an optimal preprofessional curriculum and the degree requirements for majors in the biology and chemistry departments. The College also offers two-year programs leading to the A.A. degree that prepare students for admission to programs in the health professions of pharmacy and physical therapy. Entrance into all professional schools or programs is competitive, and students should begin establishing a record of excellence with the first semester at USF. Furthermore, it is essential that students pursue courses developing a sense of understanding of cultural and humane values and basic social problems.

The College of Natural Sciences provides academic advising in the Preprofessional Sciences Advising Office. The office maintains a library of current catalogs and books on admission requirements for professional schools and is an important resource center for preprofessional students. Students considering one of the health professions should contact the College of Natural Sciences during the first semester at USF to declare their interest in a preprofessional sciences program. Students are then assigned to the Preprofessional Sciences Advising Office for curriculum planning, and each semester the office provides students with updated academic records. The advisors constitute the Preprofessional Sciences Committee, which evaluates students at the time they apply to professional schools. The Committee's evaluation is based upon academic record and test scores, individual evaluations submitted by five faculty members, and an interview. The evaluation is important in the admission selection process and is sent to every school where students are applying.

Preprofessional Sciences Program

The Preprofessional Sciences Program is designed to prepare students for admission to professional schools of dentistry, medicine, osteopathic medicine, and podiatric medicine. All of these professional schools have in common the following course requirements, which should be completed by the end of the junior year, the usual time of application:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>BSC 2010C</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHM 2045</td>
<td>3</td>
</tr>
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<td>1</td>
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<tr>
<td>Physics</td>
<td>PHY 3053</td>
<td>3</td>
</tr>
<tr>
<td>Physics</td>
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<td>Physics</td>
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<td>3</td>
</tr>
<tr>
<td>Physics</td>
<td>PHY 3054L</td>
<td>1</td>
</tr>
</tbody>
</table>

In addition to these requirements it is generally expected that preprofessional students will complete two semesters of English and mathematics appropriate for their degree. Some schools require calculus. CLEP credit usually is not acceptable to professional schools.

The following courses are recommended by some professional schools:

<table>
<thead>
<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
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<td>Biology</td>
<td>PCB 3063(6)</td>
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<tr>
<td>Biology</td>
<td>PCB 4023C</td>
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<tr>
<td>Chemistry</td>
<td>BCH 3033</td>
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<td>Mathematics</td>
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<td>Mathematics</td>
<td>STA 3122</td>
<td>3</td>
</tr>
<tr>
<td>Physics</td>
<td>PHY 3053</td>
<td>3</td>
</tr>
<tr>
<td>Physics</td>
<td>PHY 3054L</td>
<td>1</td>
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</tbody>
</table>

Preoptometry Program

Optometry schools differ somewhat in requirements, but all optometry schools require at least two years of preoptometry studies, and most schools require the following courses:

<table>
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<td>Mathematics</td>
<td>STA 3023</td>
<td>4</td>
</tr>
<tr>
<td>Physics</td>
<td>PHY 3053</td>
<td>3</td>
</tr>
<tr>
<td>Physics</td>
<td>PHY 3054</td>
<td>3</td>
</tr>
</tbody>
</table>

The following additional courses are required by schools that have contracts with the State of Florida: MAC 2234, BCH 3033, PCB 4743B, PSY 2012, PSY 3013, and a social science elective. Some schools also recommend or require ZOO 3713C, and one school also requires APB 3190.

Pre-Veterinary Medicine Program

The Pre-Veterinary Medicine program meets admission requirements of the University of Florida College of Veterinary Medicine, the only veterinary school in the state. Admission into veterinary school is highly selective, and to be competitive students should obtain experience working with animals, preferably through employment with a veterinarian. Pre-veterinary students should complete a degree in the major of their choice while including the following entrance requirements:

<table>
<thead>
<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>BSC 2010C</td>
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</tr>
<tr>
<td>Biology</td>
<td>ZOO 2010C</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHM 2045</td>
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<td>Chemistry</td>
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<td>Chemistry</td>
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</tr>
<tr>
<td>Mathematics</td>
<td>MAC 3233</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
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<td>4</td>
</tr>
<tr>
<td>Physics</td>
<td>PHY 3053</td>
<td>3</td>
</tr>
<tr>
<td>Physics</td>
<td>PHY 3054</td>
<td>3</td>
</tr>
</tbody>
</table>

The Pre-Veterinary Medicine program is designed to prepare students for admission to professional schools of dentistry, medicine, osteopathic medicine, and podiatric medicine. All of these professional schools have in common the following course requirements, which should be completed by the end of the junior year, the usual time of application:
The College of Natural Sciences offers B.A. and M.A. degree programs for secondary school teachers and the M.A. degree for junior college teachers.

The B.A. Degree Program for Secondary School Teachers:
The College of Natural Sciences in cooperation with the College of Education offers degree programs in Mathematics (MAE), in Biology (BOE), in Chemistry (CHE), in Physics (PHE) and in Science (SCE). Because requirements exist in both colleges, a student will have an advisor in each college. At the outset, the planned courses in mathematics and science must be approved by the student's advisor in the College of Natural Sciences.


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There are two options available to the student to satisfy the science portion of the program:

1. The student may complete the requirements of the departmental major. Departmental majors in Botany and Zoology may be found in this section of the catalog under the heading Biology. The departmental requirements of Chemistry, Mathematics, and Physics are found in this section of the catalog under the respective headings in Chemistry, Mathematics, and Physics.

2. The student may complete requirements of the Interdisciplinary Natural Sciences major with concentration in Biology, Chemistry, Physics, and Mathematics. A complete description of this major is found in the College of Education Section. This major is particularly appropriate for Science Education majors (SCE). Prospective students should consult the College of Education portions of this catalog under the heading "Science Education (SCE)" for the required education courses and sample programs.

**CURRICULA**

**BIOLOGY (BIO/BOT/MIC/ZOO)**

In addition to a set of basic courses in biology, students must have a thorough preparation in other areas of natural sciences in order to be competitive for jobs or for further study beyond the baccalaureate. A modern biology curriculum is built on a foundation of mathematics, chemistry and physics. Four specific Bachelor of Science degrees (Biology, Botany, Microbiology, and Zoology) are available for students interested in the biological sciences. They are all preparatory for careers in teaching, agriculture, medicine, dentistry, marine biology, biotechnology, or for post-graduate study in any of the various life sciences. The Department attempts to schedule sequences of 5000 level courses which allow seniors in the Biology program to concentrate in such areas as: Ecology, Cell & Molecular Biology, Physiology, and Marine Biology. Students should study the requirements listed below and then make maximum use of the vigorous advising program maintained by the Department in structuring their total program. A reading knowledge of a modern foreign language (German, French, or Russian) is strongly recommended for those who intend to enter graduate school.

**Requirements for the B.S. Degree**

1. **Department of Biology Courses**
   
a. **Biology Core Courses** (Required for all B.S. degrees, 19 cr. hrs.)
   
   **BSC 2010C (4)**
   
   **Two of the following:**
   
   BOT 2010C (4) or ZOO 2010C (4)
   
   MCB 3030C (4)
   
   plus
   
   PCB 3063 (3) and PCB 4023C (4)
   
   b. **Individual Degree Requirements**
   
   **BIOLOGY MAJOR (BIO) (21 cr. hrs.)**
   
   **One of the following:**
   
   PCB 4743C (4) or BOT 4503 (4)
   
   MCB 4404C (5)
   
   plus one of the following:
   
   PCB 4184C (4) or ZOO 4693C (4)
   
   ZOO 3713 (4)
   
   The remaining credits may be taken from departmental electives, structured and applicable to the major to meet the minimum requirement (at least 8 hours must be at the 4000 level or higher). BCH 3033 may apply toward the Biology electives as well as 4 hrs. of BSC 4910.
   
   **BOTANY MAJOR (BOT) (21 cr. hrs.)**
   
   **BCH 3033** and **MCB 3030C (0)**
   
   **BCH 3043C (3)** or **MCB 4503 (4)**
   

Of the remaining credits, not less than 9 must be selected from structured Botany (BOT) courses at the 4000 level or above. Additional credits to meet the minimum may be taken from courses (BOT, BSC, PCB) applicable to the major. A maximum of four (4) hours of BSC 4910 may apply towards the Botany electives (no more than two (2) hours per semester).

   **MICROBIOLOGY MAJOR (MIC) (24-27 cr. hrs.)**
   
   **BCH 3023 (3)** and **BCH 3033 (2)**
   
   **Plus one of the following:**
   
   **APB 5575C (4)** or **BOT 4053C (5)**
   
   **ZOO 5235C (4)**
   
   **ZOOLOGY MAJOR (ZOO) (19-22 cr. hrs.)**
   
   **ZOO 2010C (0)** and **MCB 3030C (0)**
   
   **ZOO 5235C (4)**
   
   **Three (3) additional structured courses from the Zoology section of the catalog:**
   
   **ZOO 3263, PCB 4253, PCB 5415, or PCB 5835C (which are listed in the Biology section of the catalog).**
   
2. **Supporting Courses in the Natural Sciences (required for all B.S. degrees, 27-38 cr. hrs.)**

   **Chemistry**
   
   **CHM 2045 (3)** or **CHM 2046 (3)**
   
   plus the following two courses:
   
   **CHM 3000 (4)** or **CHM 3210L (1)**
   
   or the following four courses:
   
   **CHM 3210 (4)** or **CHM 3211 (4)**
   
   **CHM 3210L (1)** or **CHM 3211L (1)**
   
   **NOTE:** CHM 3210, 3210L, 3211, 3211L are especially recommended for biology majors considering graduate or professional schools.

   **Mathematics**
   
   **MAC 3233 (4)** or **MAC 3234 (4)**
   
   or the following two courses:
   
   **MAC 3311 (4)** or **MAC 3312 (4)**
   
   or the following two courses:
   
   **MAC 3281 (3)** or **MAC 3282 (3)**
   
   **Physics**
   
   **PHY 3053 (3)** or **PHY 3054 (3)**
   
   **PHY 3053L (1)** or **PHY 3054L (1)**
   
   or the following four courses:
   
   **PHY 3048 (3)** or **PHY 3049 (3)**
   
   **PHY 3048L (1)** or **PHY 3049L (1)**
   
3. **General Distribution requirements (required for all B.S. degrees, 18 cr., assuming waivers of Areas 3 and 4).** Each student is required to satisfy the General Distribution requirements of the College of Natural Sciences. The selection of courses within the requirements is to be done in conference with Biology Department advisors.

4. **Liberal Education Electives**

   The student must satisfy 15 hours of liberal education electives as described in Item 3 of the graduation requirements of the College of Natural Sciences.

5. **Free Electives** (Including General Distribution Waivers) can be taken over and above major requirements and major electives to complete a 120-hour program.
TECHNICAL DEGREES WITHIN THE DEPARTMENT OF BIOLOGY

The Department of Biology offers specialized technical degrees (tracks) within the General Biology B.S. degree, emphasizing Environmental Science and Biotechnology.

The Environmental Science Tracks are designed to provide both a strong Liberal Arts education in Biology and the technical skills for active participation in resource management and conservation. These tracks are more structured than traditional degree programs and will require some additional course work (beyond 120 hrs). However, completion of the tracks will better prepare students for graduate school in any of the environmental disciplines, or for applied Biology vocations.

ENVIRONMENTAL SCIENCE TRACK:

B.S. IN BOTANY

I. Department of Biology
   Major requirements (min. 40-41 hrs.)
   - BSC 2010C (4) ZOO 2010C (4) BOT 2010C (4)
   - PCB 3063 (3) PCB 4023C (4) PCB 4043C (3)
   - BSC 4933C Sel. Topics in Ecology* or PCB 5306C (4)
   - BOT 4503 (4)
   - BSC 4933C Sel. Topics in Botany* or PCB 5605C (3)
   - BOT 4713C (4)
   - BOT 5185C (3) or BOT 4434C (3) or Approved Sel. Top.*
   *(by approval of biology advising committee)

II. Supporting Courses for both Environmental Science Tracks (min. 34-38 hrs.)
   - CHM 2045 (3) CHM 2045L (1) CHM 2046 (3)
   - CHM 2046L (1) CHM 3200 (4) CHM 3210L (1)
   - or CHM 3210 (4) CHM 3210L (1)
   - CHM 3211 (4) CHM 3211L (1)
   - MAC 3233 (3) MAC 3234 (4)
   - or MAC 3211 (4) MAC 3312 (4)
   - PHY 3053 (3) PHY 3053L (1) PHY 3054 (3)
   *(by approval of biology advising committee)

III. IV. and V. General university requirements.

To ensure a multidisciplinary approach, the environmental science tracks require specific courses to meet the general distribution, liberal arts, and free elective requirements. These requirements are available from advisers in the Department of Biology.

BIOTECHNOLOGY TRACK: B.S.

The Biotechnology Track in Biology is designed for students planning to pursue careers in Biotechnology either upon completion of the baccalaureate or after further training at the graduate level. The curriculum provides broad emphasis in Cell Biology, Molecular Biology, and Microbiology.

I. Department of Biology
   Major Requirements min. 38 hrs.
   - BSC 2010C (4)

   Supporting Courses for Biotechnology Track:
   - PCB 3063 (3) MCB 3030C (4) PCB 4023C (4)
   - PCB 4064 (3)

   Other required courses:
   - One of the following courses:
     - ZOO 2010C (4) or BOT 2010C (4)
   - plus
     - PCB 3063 (3) MCB 3030C (4) PCB 4023C (4)
     - PCB 4064 (3)

   One of the following three courses:
   - PCB 4743C (4) BOT 4503 (4) MCB 4404 (4)

   Plus three from the following courses plus electives in the department, structured and applicable to the major at the 4000 level or higher to meet minimum requirement:
   - APB 4053C, PCB 5235C, CHE 4100C or ETE 5100,
     - PCB 5525C, MCB 4505, PCB 5515C

II. Supporting Courses (min. 43-48 hrs.)
   - CHM 2045 (3) CHM 2045L (1) CHM 2046 (3)
   - CHM 2046L (1) CHM 3210 (4) CHM 3210L (1)
   - CHM 3211 (4) CHM 3211L (1) BCH 3023 (3)
   - BCH 3023L (2)
   - MAC 3281 (3)
   - MAC 3282 (3)
   - MAC 3283 (3)
   - or
   - MAC 3311 (4)
   - MAC 3312 (4)
   - MAC 3313 (4)
   - PHY 3048-3049L (8) or PHY 3053-3054L (8)
   - plus
   - PHS 3101 (2)
   - COP 3170 (3)

III. General Distribution Requirements (Required for all B.S. Degrees, 18 cr., assuming waivers of Areas III & IV). Each student is required to satisfy the General Distribution requirements of the College of Natural Sciences. The selection of courses within the requirements is to be done in conference with Biology Department advisers.

IV. Liberal Education Electives
   The student must satisfy 15 hours of liberal education electives as described in item 3 of the graduation requirements of the College of Natural Sciences.

V. Free Electives (including General Distribution waivers) must be taken over and above university requirements to complete a 120 hour program.

Teacher Education Programs:

For information concerning the degree programs for secondary school teachers and junior college teachers, see the College of Education in this catalog and the USF Graduate Catalog.

Marine Biology:

The field of marine biology is especially important in Florida, and there is a good demand for trained personnel. Several faculty members in the department teach courses and conduct research in this area. Undergraduates interested in specializing in marine biology may do so by taking marine-oriented courses offered within the department. Appropriate courses include:

- BSC 3263 (Marine Biology)
- BOT 5185C (Marine Botany)
- ZOO 3203C (Introductory Invertebrate Zoology)
- ZOO 5555C (Marine Animal Ecology)
- ZOO 5335C (Biogeography)

The Biology Department offers M.S. degrees and the Ph.D. degree which allow specialization in marine biology.

CHEMISTRY (CHS/CHM/CHC)

The Department of Chemistry offers three degrees at the baccalaureate level, Bachelor of Arts degree in Chemistry, Bachelor of Science degree in Chemistry, and Bachelor of Science degree in Clinical Chemistry, and two degrees at the graduate level, Master of Science and Doctor of Philosophy, each with specialization in the areas of analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry. In addition, a Master of Arts degree in Chemistry is offered as part of a carefully integrated accelerated B.A.-M.A. program. The
The Bachelor of Arts degree (CHM) offers a course of study designed for the student who does not intend to become a professional chemist but whose career goals require a thorough understanding of chemistry. Inherent in this program is a high degree of flexibility which permits tailoring a course of study to the student's own educational objectives. As such it offers considerable advantages to pre-professional students planning careers in medicine and the other health-related fields and an excellent preparation for primary and secondary school teachers of chemistry or physical science. The B.A. student whose goals change in the direction of graduate work in chemistry should supplement this curriculum by addition and/or substitution of a selection of advanced courses from the B.S. program.

The combined Bachelor of Arts-Master of Arts program is a carefully integrated, accelerated course of study and research in which an exceptionally able student can earn both degrees within five years from entry as a freshman or three from entry as a junior college transfer. The B.A. coursework is augmented, and research is undertaken continuously from the junior year onwards, so that the student who elects to exit from the program at the bachelor's level, to enter medical school, for example, can depart with a degree which meets requirements for American Chemical Society certification and with an unusually strong research background. For the student who continues into the graduate year, the M.A. program allows considerable freedom of choice among the available chemistry courses, so that the student's own preference within chemistry may be cultivated with unusual intensity. Research and coursework proceed without interruption, there being no additional admission requirements or diagnostic examinations, and the graduate degree is earned by the end of the summer of the graduate year. Upon completion of the program, the student is exceptionally well placed to continue to professional school or to further graduate work leading to the doctorate degree.

Requirements for the Baccalaureate Degrees

1. Chemistry Courses*

   B.A. CHEMISTRY (CHM) (39 cr. hrs.)

   CHM 2045 (3) CHM 3210 (4) CHM 3211 (4)
   CHM 2045L (1) CHM 3210L (1) CHM 3211L (1)
   CHM 2046 (3) CHM 3400 (3) CHM 3402C (1)
   CHM 2046L (1) CHM 3401 (3) CHM 3120C (4)
   CHM 3610C (4)

   Chemistry electives (3000 level or above; may include not more than one hour of CHM 4970) (6)

   B.S. CHEMISTRY (CHS) (50 cr. hrs.)

   CHM 2046 (3) CHM 3211 (4) CHM 2045 (3)
   CHM 2046L (1) CHM 3211L (1) CHM 2045L (1)
   CHM 3210 (4) CHM 3210C (4) CHM 3610C (4)
   CHM 3210L (1) CHM 4060 (1) CHM 4310C (4)
   CHM 4131C (4) CHM 4410 (3) CHM 4411 (3)
   CHM 4610 (3) CHM 4412 (3) BCH 3023 (3)

   B.S. CLINICAL CHEMISTRY (CHC) (49 cr. hrs.)

   BCH 3023 (3) CHM 3211 (4) BCH 3023L (2)
   CHM 3211L (1) CHM 2045 (3) CHM 4410 (3)
   CHM 2045L (1) CHM 4412 (3) CHM 2046 (3)
   CHS 4100C (3) CHM 2046L (1) CHS 4300 (3)
   CHM 3120C (4) CHS 4301L (2) CHM 3210 (4)
   CHS 4302 (4) CHM 3210L (1) CHS 4310C (4)

2. Supporting Courses in the Natural Sciences

   B.A. CHEMISTRY (CHM) (24 cr. hrs.)

   MAC 3311 (4) or MAC 3281 (3)
   MAC 3312 (4) or MAC 3282 (3)
   PHY 3053 (3) PHY 3054 (3)
   PHY 3053L (1) PHY 3054L (1)

   Electives (must be acceptable for credit towards a Natural Science College discipline major) (8)

   B.S. CLINICAL CHEMISTRY (CHC) (37-40 cr. hrs.)

   BSC 2010C (4) MCB 3010C (4) ZOO 2010C (4)
   PHY 4744C (3) COC 3300 (3)

   MAC 3281 (3) or MAC 3282 (3) or MAC 3283 (3) or MAC 3311 (4)

   APB 3190 (5) or PCB 4743C (4)

   PHY 3053 (3) or PHY 3049 (3)
   PHY 3053L (1) or PHY 3049L (1)
   PHY 3054 (3) or PHY 3049 (3)
   PHY 3054L (1) or PHY 3049L (1)

   B.S. CHEMISTRY (CHS) (20-23 cr. hrs.)

   MAC 3281 (3) MAC 3411 (4)
   MAC 3282 (3) MAC 3412 (4)
   MAC 3283 (3) MAC 3413 (4)

   PHY 3048 (3) PHY 3049 (3)
   PHY 3049L (1) PHY 3049L (1)

   Natural Science or Engineering Elective (3000-4000 level except PHY 3020) (3)

   The required sequence of Chemistry courses should be started immediately in the freshman year and the mathematics and physics requirements should be completed before the junior year so that CHM 3400 (B.A. degree) or CHM 4410 (B.S. degree) can be commenced at that time. CHM 4410 is a prerequisite also to other advanced courses required for the B.S. degree in chemistry. CHM 4060 also is a prerequisite to several BS degree courses.

3. General Distribution Courses

   (40 cr. hrs. excluding waivers) The student is required to complete the General Distribution requirements of the College of Natural Sciences.

4. Liberal Education Electives

   The student must satisfy 15 hours of liberal education electives as described in item 3 of the graduation requirements of the College of Natural Sciences.

5. Free Electives (including General Distribution waivers)

   B.A. CHEMISTRY (CHM); 24 cr. hrs.
   B.S. CHEMISTRY (CHS); 20-23 cr. hrs.
   B.S. CLINICAL CHEMISTRY (CHC); 0-3 hrs.

   In choosing elective courses students are urged to consider additional advanced courses in physics and mathematics as well as courses...
In the closely allied sciences such as biology and geology. Additional courses in computer programming, economics, management, engineering statistics, writing, and other applied disciplines are strongly recommended to strengthen the degree for subsequent professional employment.

Transfer Credit
It is strongly recommended that students transferring from community/junior colleges to the University of South Florida complete whole sequences of chemistry courses, such as general and organic chemistry, before the transfer. Even though courses may carry the same common course number, topics may vary sufficiently from school to school to leave the transfer student ill-prepared to proceed within a sequence.

Teacher Education Programs:
For information concerning the degree programs for secondary school teachers, see College of Education section this Catalog and junior college teachers, see USF Graduate Catalog.

Requirements for the Combined BA-MA Program:

Admission
Regular admission to the program will normally occur towards the end of the sophomore year or early in the junior year, or at transfer from junior college. Students who have completed not less than ten semester credit hours of chemistry courses, and have maintained a "B" average in chemistry courses and overall, may apply. Applications will be considered individually and applicants may be called for interview. Provisional admission may be granted to incoming freshmen whose academic background and performance indicate the likelihood of their meeting the regular requirements in due course. It should be noted, that in view of the heavy research component and orientation of the program, and the limitations of facilities and individual faculty time available for research direction, admission to the program is by no means automatic upon meeting minimum requirements.

Course Requirements
Undergraduate: The B.A. coursework curriculum (q.v.) is augmented as follows:
1. CHM 4410, 4412, and 4130C (or CHS 4310C) replace CHM 3400, 3401 and 3402C.
2. Chemistry coursework hours (excluding research) total 40 rather than 39.

Graduate: Not less than 20 credit hours of formal, regularly scheduled chemistry graduate courses, including not less than two of the five core courses (BCH 5065, CHM 5225, CHM 5425, CHM 5621, CHM 6150). At least 10 of the credit hours must be at the 6000 level. The core course requirement may be waived in part or entirely by recommendation of the supervisory committee on the basis of past work, performance on a test, or substitution of more comprehensive and advanced courses.

Research and Thesis
CHM 4970 (12) CHM 6973 and CHM 6971 (10)
To satisfy the research credit hour requirements and to produce results suitable for publication in a refereed scientific journal, it will be necessary for the student to be enrolled during the summers of his junior, senior and graduate years. Completion of the program will require the presentation and formal defense of a research thesis for the master's degree.

Supervision and Promotion
A supervisory committee consisting of two faculty members will be appointed for each student admitted to the program. A carefully planned individual timetable will be worked out and progress will be monitored each semester. Continuation from the senior year into the graduate year will be contingent upon the maintenance of the "B" average in chemistry and overall, and upon satisfactory recommendation by the student's research director. Diagnostic and qualifying examinations will not be required of students in this program. The supervisory committee during the graduate year will consist of three faculty members, including the research director.

GEOLOGY (GLY)
The Department of Geology offers programs leading to the Bachelor of Arts or Bachelor of Science degree, and to a Master of Science degree. Geology is one of the broadest of all sciences because of its dependence on fundamentals of biology, chemistry, mathematics, and physics as applied to the study of the earth. As a result, undergraduate students are expected to obtain a broad background in the other sciences as well, as a concentration in geology.

The Bachelor of Science degree program is designed to provide the geology major with a broad foundation that will prepare the student for employment in industry or with various governmental agencies, as well as the necessary training to continue study in graduate school. The Bachelor of Arts program is designed primarily for the liberal arts student who has interest in the subject but is not preparing for a career in the field or for the pre-professional school student. A student who elects the B.A. program and decides to pursue the geology profession or attend graduate school will need at least physics and field geology in his/her program.

The graduate program in geology allows the student to pursue advanced studies in nearly all areas of geology. As a result of faculty interests and geographic location, several geologic subdisciplines are emphasized, including coastal geology, hydrogeology, environmental geochemistry, applied geophysics, volcanology, and paleontology.

Requirements for the B.A. Degree:

1. Geology Courses (30 sem. hrs.)
   - GGY 2010 (4)
   - GGY 3610 (4)
   - GGY 4550 (3)
   - GGY 2100 (4)
   - GGY 4200 (4)
   - GGY 4930 (1)
   - GGY 3400 (4)
   - GGY 2220 (5)
   - A minimum of 2 sem. hrs. from GGY 4920 (1)

2. Supporting Courses (22-28 sem. hrs.)
   a. CHM 2045 (3)
   - GGY 2046 (3)
   - CHM 2045L (1)
   - CHM 2046L (1)
   b. One year of calculus (MAC 3233, 3234 or 3311, 3212, or 3281, 3282), STA 3023 may be substituted for one semester of calculus.
   c. Two courses in biology or physics selected from:
      - GGY 2010C (4)
      - BOT 2010C (4)
      - ZOO 2010C (4)
      - PHY 3053-3053L (4)
      - PHY 3054-3054L (4)
      or
      - PHY 3048-3048L (4)
      - PHY 3049-3049L (4)

3. General Distribution Courses (40 sem. hrs. excluding waivers.) The student is required to satisfy the General Distribution requirements of the College of Natural Sciences.
4. Liberal Education Electives
   The student must satisfy 15 hours of liberal education electives as described in item 3 of the graduation requirements of the College of Natural Sciences.
5. Free Electives (including Distribution waivers) (29-35 sem. hrs.)

Requirements for the B.S. Degree:

1. Geology (40-42 sem. hrs.)
   - GGY 2010 (4)
   - GGY 3610 (4)
   - GGY 4220 (5)
   - GGY 2100 (4)
   - GGY 4200 (4)
   - GGY 4550 (3)
   - GGY 3400 (4)
   - GGY 4930 (1)
   - GGY-prefixed, structured electives (6)
2. Supporting Courses (22-26 sem. hrs.)
CHM 2045 (3)  CHM 2046 (3)
CHM 2045L (1)  CHM 2046L (1)

MAC 3281 (3)  (or)  MAC 3311 (4)
MAC 3282 (3)  (or)  MAC 3312 (4)

PHY 3048 (3)  PHY 3049 (3)
PHY 3048L (1)  PHY 3049L (1)

3. General Distribution Courses (40 sem. hrs. excluding waivers).
The student is required to satisfy the General Distribution requirements of the College of Natural Sciences.

4. Liberal Education Electives.
The student is required to complete the liberal education electives of the College of Natural Sciences.

The student will choose, in consultation with his/her Geology advisor, such courses in the College of Natural Sciences that support his/her major interest in the field of Geology. Courses in computer programming and additional Mathematics are of particular value. Those students who anticipate continuing for a doctorate in graduate school are encouraged to take a foreign language, preferably French, German, or Russian.

All geology majors are strongly urged to take a course in technical writing.

All entering students anticipating a major in Geology are advised to enroll in:

GLY 2100  CHM 2045  CHM 2046
GLY 2100  CHM 2045L  CHM 2046L
in the freshman year and to seek curriculum counseling with a Geology advisor.

Minor in Geology
A minor in geology consists of 16 credit hours and must include GLY 2100 and 2120. Additional courses, approved by the geology advisor, are designed to complement the student’s major program. Only those courses which are acceptable toward the major in geology may be used toward the minor.

Teacher Education Programs:
Prospective elementary and secondary school teachers desiring to teach science should include basic courses in Geology and related sciences as part of their curriculum.

INTERDISCIPLINARY NATURAL SCIENCES (INS)
The Bachelor of Arts in the Interdisciplinary Natural Sciences major is designed for majors seeking a broad program in the College and for majors in Science Education and Mathematics Education. For information on teacher certification in science or mathematics, prospective teachers should consult the section entitled Teacher Education Programs, and also consult the College of Education section of the catalog.

The requirements for graduation for this degree are the same as those contained in College of Natural Science General Requirements for Degree except that Item 1 of the requirements is altered as follows:
1a. For Science Education and Mathematics Education Majors only completion of a major consisting of a minimum of 45 hours in College of Natural Sciences courses applicable to a major in the College. In these hours there must be a minimum of 24 credit hours in a discipline of major concentration and a minimum of 16 credit hours in supporting courses outside the discipline of major concentration. At least two of the supporting courses must be at the 3000 level or above. The student must earn a grade of "C" or better in each course in the major concentration and in each supporting course.

1b. For College of Natural Sciences Majors only completion of a minimum of 45 credit hours in College of Natural Sciences courses applicable to a major in the College. In these hours there must be a minimum of 24 credit hours in a discipline of major concentration and a minimum core of supporting courses comprising a calculus sequence and the introductory science sequence from each department in the College outside the discipline of major concentration. Courses in the supporting core must be taken from the following:

BSC 2010C (4)  ZOO 2010C (4)  MCB 3010C (4)
CHM 2045 (3)  CHM 2046 (3)
CHM 2045L (1)  CHM 2046L (1)

MAC 3233 (4)  (or)  MAC 3311 (4)
MAC 3234 (4)  (or)  MAC 3312 (4)  (or)  MAC 3281 (3)
MAC 3282 (3)  (or)  MAC 3313 (4)  (or)  MAC 3283 (3)

PHY 3053  (or)  PHY 3048
PHY 3053L  (or)  PHY 3048L
PHY 3054  (or)  PHY 3049
PHY 3054L  (or)  PHY 3049L

The student must earn a grade of "C" or better in the major concentration and in each supporting course.

MATHEMATICS (MTH)
The Department of Mathematics offers a diversity of courses designed not only to enable the student to pursue a profession in mathematics itself, but also to enhance his competence in the fields of engineering, the physical sciences, the life sciences, and the social sciences. The department offers programs leading to the B.A., M.A., and Ph.D. degrees. The undergraduate program emphasizes the broad nature of modern mathematics and its close associations with the real world. The program is designed to prepare students for entry into graduate school or careers in industry or secondary education.

The department has a flexible Ph.D. program which is designed to encourage students to take an active role in the shaping of their own curricula. This flexibility is coupled with a desire to promote interdisciplinary research. In cooperation with the Departments of Marine Science and Physics, and the College of Engineering and Medicine, the department offers special Ph.D. programs in the applications of mathematics. While programs in the more traditional areas of pure mathematics are offered, the department is committed to emphasizing applied mathematics at both the graduate and undergraduate levels. For both undergraduate and graduate work, students and faculty have access to the University’s computers, an IBM 3033 and 3081, and to the college’s Harris minicomputers.

The Department of Mathematics consists of 32 full-time faculty members, whose areas of interest include algebra, applied mathematics, applied statistics, approximation theory, celestial mechanics, complex analysis, functional analysis, graph theory, harmonic analysis on Lie groups, logic, mathematical physics, nonlinear functional analysis, number theory, ordinary differential equations, partial differential equations, probability theory, real analysis, statistics, and theoretical computer science and topology.

Requirements for the B.A. Degree
The courses taken to satisfy the requirements below will constitute the major program referred to in the general graduation requirements of the College of Natural Sciences.

1. Mathematics Requirement (Min. 46 cr. hrs.)
   Majors must complete the following core courses:
   CGS 3422  Computer Applications of Mathematics -6A (3)
   MAA 4211  Advanced Calculus I -6A (4)
   MAA 4212  Advanced Calculus II -6A (4)
   MAC 3311  (formerly MAC 3411) Calculus I -6A (4)
   MAC 3312  (formerly MAC 3412) Calculus II -6A (4)
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MAC 3313 (formerly MAC 3413) Calculus III -6A (4)
MAP 4302 Differential Equations -6A (3)
MAS 3103 Linear Algebra -6A (3)
MAS 4301 Elementary Abstract Algebra -6A (3)
MAT 4937 Mathematics Majors Seminar -6A (2)
STA 4442 Introduction to Probability -6A (3)

In addition, majors must complete four (4) courses (including one sequence) from the following electives:

COP 4210 (3) MAA 5306-5307 (6)
MAD 5101 (3) MAA 5405-5406 (6)
MAD 5305 (3) MAD 4124-4401 (6)
MAP 5205 (3) MAP 5316-5317 (6)
MAS 5107 (3) MAP 5407-5345 (6)
MAS 5215 (3) MAS 5311-5312 (6)
MHF 3102 (3) MTG 5316-5317 (6)
MHF 5302 (3) STA 4442-4321 (6)
MTG 4212 (4) STA 5166-5167 (6)
STA 5206 (4)

Majors in mathematics for teaching should consult the section on mathematics (MAE) on mathematics requirements.

The following is a suggested course program for the first two academic years:

<table>
<thead>
<tr>
<th>Semester I</th>
<th>Semester II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman Year</td>
<td>Sophomore Year</td>
</tr>
<tr>
<td>MAC 3311</td>
<td>MAC 3312</td>
</tr>
<tr>
<td>MAC 3313</td>
<td>MAP 4302</td>
</tr>
<tr>
<td>MAS 4301</td>
<td>MAS 3103</td>
</tr>
</tbody>
</table>

2. Mathematics-related Courses (6-8 cr. hrs.)

Majors, except for majors in mathematics for teaching, must take two courses with laboratories in the College of Natural Sciences, outside the Department of Mathematics, that are required courses for some major within the college.

Majors will not receive credit toward graduation for the following courses:

AST 3033 GEB 3121 STA 3122
ECO 4402 PHY 3020
GEB 2111 STA 3023

Majors wishing to take a course in statistics should take STA 4321.

Teacher Education Programs:
For information concerning the degree programs for secondary school teachers, see the junior college teachers section in the USF Graduate Catalog.

Mathematics Minor
Although open to all students, the minor in mathematics is designed particularly for students in science and engineering who wish to enhance their mathematical capabilities to benefit their major. A student wishing to receive a minor in mathematics must take the following courses:

Total credit hours required: 29 (minimum)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGS 3422</td>
<td>3</td>
</tr>
<tr>
<td>MAA 4211</td>
<td>4</td>
</tr>
<tr>
<td>MAA 4212</td>
<td>4</td>
</tr>
<tr>
<td>MAC 3311 (formerly MAC 3413)</td>
<td>4</td>
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<tr>
<td>MAC 3312 (formerly MAC 3412)</td>
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<tr>
<td>MAC 3313 (formerly MAC 3413)</td>
<td>4</td>
</tr>
<tr>
<td>MAS 3103</td>
<td>3</td>
</tr>
<tr>
<td>MAS 4301</td>
<td>3</td>
</tr>
</tbody>
</table>

In addition, students wishing to receive a minor must take two courses with laboratories in the College of Natural Sciences, outside the Department of Mathematics, that are required courses for some majors within the college.

Accelerated BA/MA Program
This program is designed for superior students having a solid background in high school mathematics and the ability to handle a fast-paced, challenging program leading to a BA and MA degree in mathematics in four to five years. The program meets all the requirements for the BA degree, but requires the student to take those 5000 and 6000 level courses required for the MA degree during his last two years in the program. By awarding up to 20 hours of dual credit (undergraduate and graduate), the student also uses these courses to satisfy the requirements for the MA in mathematics. Further information is available on request from the Mathematics Department (974-2643).

Honors Program in Mathematics
The program is designed for students who wish to obtain a B.A. degree that will indicate unusual strength in the field of mathematics. Successful completion of the program will be prominently displayed on the student's diploma and will be recorded on the official U.S.F. transcript of the student's work.

Students are eligible for admission to the program when they (a) have completed MAS 3103 (Linear Algebra), MAS 4301 (Elementary Abstract Algebra) and one of the calculus sequences MAC 3281-3283 or MAC 3311-3313, (b) have at least a 3.0 overall average in their college courses, and (c) have at least a 3.5 average in their college mathematics courses. Applications are submitted to the undergraduate committee of the mathematics department.

The requirements for a B.A. Degree in Mathematics with Honors are as follows:

1. Successful completion of the requirements for a B.A. Degree in Mathematics.
2. Six credits of those graduate level mathematics courses at U.S.F. that are prerequisites for qualifying examinations required by mathematics graduate degree programs.
3. At least two credits in MAT 4939, Mathematics Honors Seminar.
4. Successful completion of MAT 4970, Mathematics Senior thesis.
5. An overall 3.0 G.P.A., with at least a 3.5 G.P.A. in all mathematics courses.

MEDICAL TECHNOLOGY (MET)
Medical Technology is one of the growing professions associated with the advances in modern medical science. Working in the clinical laboratory, the medical technologist performs chemical, microscopic, bacteriologic, and other scientific tests to help track the cause and treatment of disease. This technician requires specialized training and a baccalaureate degree is essential preparation for certification as a medical technologist.

The University of South Florida offers a four-year program leading to the Bachelor of Science degree in Medical Technology. A student electing to major in Medical Technology will spend the first three years of the program on the campus of the University of South Florida; the fourth year (12 months) will be spent in one of the affiliated hospitals or clinical laboratories. Admission to the fourth year is limited by the number of openings in the affiliated hospitals. Selection of interns is made by the hospitals.

During the first three years, the medical technology student will complete the liberal arts and basic science requirements for entrance into the fourth year of the program for clinical training. To remain in good standing as a Medical Technology major during this period, a reasonable grade point average, determined by the College of Natural Sciences, must be maintained. To be eligible for entrance into the program's fourth year, the student must have completed not less than 90 credit hours of work (excluding physical education courses). Of these hours, at least 20 credit hours must be from the College of Natural Sciences at the University of South Florida in courses approved by the Director of the Medical Technology Program. The following courses must be included in the three years of work which precedes the fourth year of clinical training.

1. Biological Sciences
A minimum of 16 hours is required with at least one course in microbiology and one course in immunology. Physiology APB 3190 or
PCB 4743C) and Determinative Bacteriology (MCB 4115) are strongly recommended.

2. Chemistry
A minimum of 18 hours is required including one semester of Elementary Organic Chemistry (CHM 3200, CHM 3210L; CHM 3210 AND 3211 may be substituted for CHM 3200) and one semester of Elementary Analytical Chemistry (CHM 3120C). Biochemistry (BCH 3023) and Clinical Chemistry (CHS 4300) are strongly recommended.

3. Physics
A minimum of 8 hours (one full-year majors-type course) is required.

4. Mathematics
A minimum of 6 hours including at least one course at the level of College Algebra (MAC 2102) or Elementary Calculus I (MAC 3233) is required. Statistics (STA 3122 or STA 3045) and one course at the level of 3048 or 3424 are required.

5. General Distribution Requirements
Courses satisfying the general distribution requirements of the College of Natural Sciences.

6. Courses in non-science fields to insure a broad background. Upon successful completion of this curriculum, recommendation by the College, and acceptance by one of the affiliated hospitals or clinical laboratories, the student will complete 12 continuous months of training at that hospital or laboratory.

This training period usually begins in late July or early August of each year, but a few begin in January or February. During this period, one will continue to be registered as a full-time student of the University and will receive a total of 30 credit hours of work in:

- MLS 3031
- MLS 4862
- MLS 4863
- MLS 4864
- MLS 4865
- MLS 4866

These courses will be taught at the hospital or clinical laboratory. Students successfully completing this program will be granted a Bachelor of Science degree in Medical Technology.

PHYSICS (PHY/PHS)
The Department of Physics offers programs leading to a Bachelor of Arts or a Bachelor of Science degree, and to a Master of Science degree. Both thesis and non-thesis programs are available for the M.S. degree.

Qualified graduate students with appropriate backgrounds may obtain a Ph.D. in Applied Mathematics or Engineering Science. An interdisciplinary arrangement with the Department of Mathematics and with the College of Engineering provides for such an opportunity. Students should consult with the Physics Graduate Adviser for details.

At the graduate level, thesis research areas include solid state physics, semiconductor physics, applied physics, atomic-molecular physics, quantum electronics and laser physics, theoretical physics, and medical applications of physics. Supporting facilities include computers, from Departmental PCs to the University’s main-frame, as well as machine, electronics, and glass-blowing shops.

Requirements for the Baccalaureate Degrees:

1. Physics Courses
   - B.A. PHYSICS (PHY) (34 cr. hrs.)
     - PHY 30481 (3) PHY 3221 (3) PHY 4324C (4)
     - PHY 30461 (1) PHY 3323C (4) PHY 4823L (2)
     - PHY 30491 (3) PHY 3822L (2) PHY 4910 (1)
     - PHY 3049L1 (1) PHY 4222 (3) PHY 4930 (1)
   - Physics Electives (6)
   - B.S. PHYSICS (PHS) (44 cr. hrs.)
     - PHY 30481 (3) PHY 3323C (4) PHY 4604 (3)
     - PHY 3048L1 (1) PHY 34242 (4) PHY 4823L (2)
     - PHY 30491 (3) PHY 3822L (2) PHY 4910 (1)
     - PHY 3049L1 (1) PHY 4222 (3) PHY 4930 (1)
     - PHY 3101 (3) PHY 4324C (4) PHZ 54052 (3)
     - PHY 3223 (3) PHY 4523 (3)

1. The sequence PHY 3101 (2), PHY 2053 (3), PHY 2053L (1), PHY 2054 (3), and PHY 2054L (1) may be substituted for the sequence indicated.

   Substitutions permitted subject to approval of adviser.

2. Supporting Courses in the Natural Sciences
   - B.A. and B.S. PHYSICS (20 cr. hrs.)
     - CHM 2045 (3) CHM 2046L (1) MAC 33133 (4)
     - CHM 2045L (1) MAC 33112 (4) MAP 4302 (3)
     - CHM 2046 (3) MAC 33123 (4)

   3. The sequence MAC 3281 (3), MAC 3282 (3), and MAC 3283 (3) may be substituted for the sequence indicated.

3. General Distribution Requirements
   - (40 cr. hrs. excluding waivers)
   - The student is required to complete the general distribution requirements of the College of Natural Sciences. Selection of a foreign language, preferably French, German, or Russian is also strongly recommended.

4. Liberal Education Elective
   - The student must satisfy 16 hours of liberal education electives as described in item 3 of the graduation requirements of the College of Natural Sciences.

5. Free Electives
   - (Including general distribution waivers) to complete a 120 hour program.

Teacher Education Programs:
For information concerning the degree programs for secondary school teachers, see Teacher Education Programs this college; for junior college teachers, see USF Catalog.

COLLEGE OF NATURAL SCIENCES
NEW COLLEGE OF USF

New College of the University of South Florida, located on USF's Sarasota campus, is a distinguished residential college that serves as the honors college of the State University System. It offers a nationally recognized liberal arts education at regular state tuition rates.

The New College student/faculty ratio is approximately 10:1; ninety-four percent of the faculty hold earned doctorates. Students work closely with faculty members in small classes, tutorials, and on individual projects. Study at New College culminates in a senior thesis.

Admission criteria are highly selective. New College looks for students who have demonstrated above average ability, academic motivation and self-discipline. About half the students are from Florida.

New College offers to students a level of faculty support and facilities for study generally found only at very expensive private colleges. This is possible because the gap between public funding and the actual cost of a New College education is closed by annual grants to the University from the New College Foundation. The Foundation also raises substantial scholarship funds for meritorious students.

Educational Program

The New College degree is awarded for intensive, individualized study in the liberal arts and sciences. Classes, tutorials and independent study projects are tools the student, with faculty guidance, uses to discover and pursue intellectual and career interests. Study at New College culminates in a senior thesis and baccalaureate examination in the student's chosen area of concentration.

New College offers excellent academic facilities. A $6.1 million library opened on the campus in 1986, housing a collection presently numbered at over 200,000 volumes. The library is linked through inter-library loan to the USF system of over one million volumes, and to a network of thousands of other libraries. It also subscribes to computerized data bases that extend its reach beyond the region. The New College Natural Sciences laboratories, open to students around the clock, feature many research-grade instruments, including a scanning electron microscope. The college has special access to significant biological field research sites in the Sarasota area. Computer facilities available to students range from "user friendly" Macintoshes to an IBM mainframe.

Campus-based studies can be supplemented by off-campus field research and internships, and by study abroad. New College participates in the Florida State University Study Centers in London and Florence, as well as in other programs, and has exchange programs with the University of Glasgow, University College Dublin, and the University of Waterloo (Canada).

Areas of Study

All programs at New College lead to the Bachelor of Arts. Students may concentrate in a specific discipline or they may design, with faculty approval, an interdisciplinary concentration. The faculty offers the following areas of study:

- Anthropology
- Art History
- Biology
- Chemistry
- Child Development
- Classics
- Cognitive Psychology
- Computer Science
- Economics
- Environmental Studies
- Elementary through advanced studies in French, German, Russian, Spanish, Latin and Greek language and literature

Study at New College leads to a wide range of careers. Graduates from New College go to medical, dental and law school. A large number do graduate work in the arts and sciences, leading to teaching, research and careers in government and industry. Others obtain advanced degrees in business, education, religion and architecture. Those not going on for advanced degrees have launched successful careers in journalism, fine arts, retailing, management, finances, environmental planning and a host of other fields. Quite a few have become entrepreneurs, founding businesses of their own based on skills acquired while students.

The Academic Calendar and Residence Requirements

The New College calendar consists of two 15-week semesters and a four-week independent study period in January. Fall semester begins in late August and ends just before Christmas. Spring semester begins the first week in February and ends in late May. Enrollment at New College is full-time.

Students may complete the degree in seven semesters (three and one-half years) as a result of New College's longer academic year and the advanced nature of the program. Three Independent Study Projects are carried out during January and/or the summer recess. Students may register for up to two additional semesters if their academic programs require it; they may also take up to two semesters of academic leave during their tenure at New College without loss of scholarship support. By special petition and with summer study, exceptionally qualified students may complete the degree requirements in three years. All students must complete a senior thesis and pass a baccalaureate examination based upon the senior thesis.

Transfer students may have the number of semesters required for graduation reduced through the awarding of transfer credit for college-level work done elsewhere. The maximum allowable transfer credit is equivalent to three semesters and one independent study project.

Admissions Requirements

New College actively seeks those students who will benefit most from the demanding academic program and flexible curriculum. The college looks for evidence of intellectual potential, strong academic preparation, self-motivation and initiative, tenacity, curiosity and concern for others.

Applicants must submit a State University System application, New College supplementary application, official high school transcript, SAT or ACT scores, graded research paper from an English or history class, teacher's recommendation, and school report. An interview is required for all applicants within a 100-mile radius of Sarasota and encouraged for all candidates. Transfer applicants must also submit transcripts from all colleges or universities they have attended. New College welcomes transfer applicants. A growing number of students come to New College from Florida's two-year community colleges.

New College tuition is the same as for other institutions within the State University System.

Both need-based financial aid and achievement-based scholarships are available to New College students, and about 75% of the students receive some type of direct financial assistance. Students must apply for need-based aid and for USF scholarships. Achievement scholarships from the New College Foundation are awarded by the New College Admissions Office to those students the college believes will make an outstanding contribution to the New College community.

The New College Admissions Office processes applications on a rolling basis, with decisions beginning about December 1. Students applying for need-based financial aid and USF scholarships must apply by February for the fall semester. Application forms and literature can be obtained from the New College Admissions Office, 5700 N. Tamiami Trail, Sarasota, Florida 34243. Phone (813) 355-2963.

Student Life

New College is a residential college, with the majority of its students living on campus or in adjacent neighborhoods. All students attend full-time. Students are challenged to accept major responsibilities for the direction of their own affairs, including the social and extra-curricular activities. The Student Affairs Office, through its professional staff, is responsible for personal counseling, housing, health services, and other support services.

All first-year students live on campus and participate in the community dining plan. Upper-class students may choose college or non-college housing.

A medical plan gives students access to a physician.
The College of Nursing is committed to the improvement of nursing and health care services through its educational programs, community service, and related research activities. In order to carry out its commitment in nursing education, the college offers an upper division program that leads to a Bachelor of Science degree with a major in nursing.

There are two sequences in the undergraduate program, one for qualified students with no previous preparation in nursing (generic students), and one for registered nurses, who are graduates of diploma or associate degree nursing programs. The generic sequence is designed so that students with appropriate preparation equivalent to two years of college can enroll in the nursing major and complete requirements for the degree in four semesters and a summer session of full-time study on the Tampa campus. The registered nurse sequence is designed so that registered nurses can enroll in the nursing major on a full-time and/or part-time basis on the Tampa campus, or on a part-time basis on the University campuses at Fort Myers, Sarasota, and St. Petersburg. Registered nurses who enroll as full-time students may complete requirements for the bachelor’s degree in three semesters. If they enroll as part-time students, the degree requirements can be completed in five to six semesters.

The program is accredited by the National League for Nursing and approved by the Florida State Board of Nursing. Graduates of the generic sequence are eligible to write the qualifying examination for licensure as a registered nurse by the State of Florida Board of Nursing. Graduates also may apply for licensure in other states. Graduates of the undergraduate program have the educational background necessary for graduate study in nursing.

The College of Nursing encourages applications from qualified applicants of both sexes, and from all cultural, racial, religious, ethnic, and age groups. The College of Nursing uses selective criteria for the admission of students. Limitations on enrollments are determined on the basis of availability of sufficient qualified faculty, laboratory and classroom facilities, and clinical teaching resources. Florida residents are given priority.

**Professional Nursing Philosophy**

Nursing is a profession and a discipline sanctioned by society. Its essential goal is health which is expressed within the context of personal, interpersonal and social systems. The focus for professional nursing is human beings interacting in a variety of environments for the purpose of pursuing health or a dignified death. Nursing is a transactional process which establishes mutually set goals with individuals, groups, families and communities for the purpose of providing health activities and care of the sick, injured, and dying. The complex intellectual processes used by nursing are perceiving, thinking, relating, judging, acting and interacting. These processes require the use of a scientific body of knowledge to access, plan, implement, and evaluate nursing care.

Concepts which are the central focus for the practice of professional nursing are human beings, society, environment and health.

Human beings are unique and holistic, and are characterized by open systems of transaction with their environment. They are perceptual; purposeful; action, time and goal oriented. Human beings communicate through their use of language and other symbols that reflect individual, group, and societal differences.

Society encompasses individual, group, family and community values, norms and expectations. The United States is a pluralistic, democratic, dynamic society in continuous change as exemplified by increased technological advances. However, the freedom of individuals and groups is protected by the laws and the behavioral norms of this social system.

Environment is comprised of ecosystems which support the interactive process of the personal, interpersonal, and social systems. Nursing systems strive to promote, provide, and support healthy environments as an integral aspect of professional nursing practice.

Health is viewed within the context of dynamic life experiences of individuals, groups, families, and communities. Health implies continuous adjustment to stressors and challenges in the internal and external environment through use of resources in order to achieve maximum potential for optimum functioning. Health is influenced by cultural, social, economic, genetic, political factors as well as value systems and religious beliefs. Human beings have the right to quality health care, the obligation to engage in health practices and the freedom to make informed decisions about their health, health practices, and health care.

Nursing care is an integral component of health care delivery. Professional nurses assume various roles which involve independent, collaborative, interdependent, and dependent functions. Professional nurses provide health services in a variety of complex systems and are accountable for these professional services based on (1) a body of knowledge which is continuously being refined and expanded through nursing research; (2) a Code of Ethics; (3) standards of practice as determined by the profession; and (4) the Nurse Practice Act. Professional nurses provide leadership through participation in professional and community organizations. As responsible citizens, nurses contribute to the promotion of quality health care by participation as knowledgeable members of society in activities that influence the health of individuals, families, groups and communities.

The discipline of nursing is an integral part of the system of higher education and is responsible for the development and dissemination of knowledge. The discipline is also responsible for promoting and preserving the historical and philosophical foundation of the profession. Knowledge is developed through identification of models for systematic thought; constructing and testing theories for nursing; and conducting research. The discipline disseminates knowledge for nursing through scholarly publications and presentations; and through curriculums that prepare for entry into professional practice and for entry into areas of specialized practice and research. In these curriculums the teaching-learning process is a cooperative enterprise in which learners have the freedom to learn and teachers have the freedom to teach. Learning is viewed as a lifelong process of social, psychological, and intellectual growth essential for performing the functions of professional nursing.

**UNDERGRADUATE PROGRAM TERMINAL OBJECTIVES**

**UPON GRADUATION, GRADUATES WILL:**

1. Use the nursing process as the basis for nursing practice in primary, secondary and tertiary care settings to assist individual clients, families or groups of clients of all cultures and ages in the promotion and maintenance of health, prevention of illness, coping with actual and perceived threats to health, restoration of health, habilitation and rehabilitation.

2. Participate cooperatively with other health care professionals and community leaders in assessing community health needs and planning and providing essential services.

3. Practice within the legal/ethical parameters of professional nursing.

4. Utilize knowledge of concepts, principles, theories, and models underlying nursing practice to guide clinical decision making.

5. Utilize appropriate principles of leadership in providing leadership within the health care system of the profession.

6. Exercise clinical judgment needed to apply clinical data and research findings from nursing and related fields in nursing practice.

**Undergraduate Education in Nursing**

Qualified students with no previous preparation in nursing, and registered nurses who are graduates of associate degree or hospital programs are eligible for admission. The undergraduate program in nursing is an upper division major at the University of South Florida. The University’s general education distribution requirements and College of Nursing support courses can be completed on the Tampa campus or at any local community college, university or college that offers the
general education distribution. These can be completed prior to transfer to USF for the nursing major.

Students who enroll at USF in the lower division are admitted to Undergraduate Studies. They must meet the requirements for admission to the University, and should follow the procedures for admission to the University in this Catalog.

Applications for admission to the University may be obtained by contacting the Office of Admissions, University of South Florida, Tampa, Florida 33620. College graduates and transfer students from other undergraduate nursing programs are also eligible for admission to the major on a space available basis. Transfer students may not be admitted to the College of Nursing unless they are eligible for admission to the University. Official transcripts certifying completion of all requirements for admission must be available to the College of Nursing before admission is confirmed and enrollment permitted.

Generic students are admitted in the Fall semester of each year. The deadline for University application is January 4 of the year in which the student plans to enroll. Applications are available from: Office of Admissions, University of South Florida, Tampa, Florida 33620. In addition, a separate application must be submitted directly to the College of Nursing by February 1, prior to the Fall semester. College applications are available from: College of Nursing Admissions Office, University of South Florida, Tampa, Florida 33612.

Registered nurse students are admitted to the College on a more flexible basis contingent upon completion of admission prerequisites and requirements, and the availability of the appropriate sequence of nursing courses on the campus to which they are seeking to pursue course work. The deadline for receipt of an application from registered nurse students is at least one (1) semester in advance of the semester in which they intend to enroll. For more specific information, contact the College of Nursing Undergraduate Admission Office.

HONORS PROGRAM

An Honors Program in Nursing is available for highly qualified students. Emphasis is on individual research and creative scholarship and each student is required to complete and defend orally an undergraduate thesis.

OVERALL REQUIREMENTS

1. Completion of 60 semester hours of college-level work with a cumulative grade-point average of 2.5. Credit received on the basis of CLEP or Advanced Placement examinations or other appropriate procedures may be included to meet some of these requirements.

2. Completion of the University of South Florida general education distribution requirements as part of the above. These requirements may be satisfied by the completion of 40 semester hours in the following areas with not less than 6 semester hours in each area:
   a. English Composition
   b. Humanities/Fine Arts
   c. Mathematics/Quantitative Methods*
   d. Natural Sciences*
   e. Social Sciences*

3. Students with an A.A. degree (other than in nursing) will be considered to have met all of the USF General Education Distribution requirements but also must meet specific college requirements in the areas marked "**".

4. Students are required to meet the University requirement for foreign language.

Admission Requirements

In order to be considered for full admission to the college, the applicant must:

1. Submit an application to USF by the appropriate deadline.

2. Submit an application and all supporting materials, including transcripts, to the College of Nursing by the appropriate deadline.

3. Maintain a minimum grade point ratio of 2.5 with a grade of "C" or better in each prerequisite course.

4. Complete prior to enrollment in the major all those general education
tion and specific prerequisites required for admission to the major.

5. Complete all prerequisites with not more than two (2) repeated courses and not more than one (1) repeat of any given prerequisite course.

6. Complete the College Level Academic Skills Test (CLAST) and the writing and computation course requirements of 6A-10.30.

7. Complete an approved cardiopulmonary resuscitation (BCLS) course prior to enrollment.

8. Provide evidence of computer literacy.

9. Maintain current licensure in Florida if enrolling in the program as a registered nurse.

10. Provide evidence of recent work in nursing if enrolling in the program as a registered nurse.

In addition to the minimum requirements listed above, applicants will be evaluated on factors which are relevant to program completion and professional nursing practice: cumulative grade point average, performance in specific courses, and ability to communicate verbally and in writing. All applicants who appear to be eligible for admission may be interviewed.

Those applicants with the highest total rankings are accepted in order until the quota is filled. As vacancies occur prior to the enrollment date, those next on the list are accepted to fill them. Enrollment of all students is contingent upon verification through official transcripts of satisfactory completion of all requirements for admissions.

Conditional Admission Policy for Registered Nurses

RN students who have not completed their general education requirements may be admitted conditionally to the College of Nursing. Students may enroll in selected nursing courses while completing these requirements. Nursing courses may be selected from the following:

NUR 3117 Introduction to Professional Nursing
NUR 3007 Nursing Process
NUR 3066C Client Assessment I
NUR 3706 Nursing Concepts in Secondary Care
NUR 3706 L Nursing Practicum I
NUR 3829 Ethical/Legal Aspects in Nursing and Health Care
NUR 4165 Introduction to Research

Electives

No student with conditional admission will be allowed to progress to 4707 and 4707L until the general education requirements are met. Students who are admitted conditionally must satisfy written contract requirements.

Specific Course Prerequisites

The College of Nursing requires certain courses within the general education distribution for the natural, social and behavioral sciences, and mathematics. These requirements are outlined below. Suggested courses are also included. The student must: 1) earn a grade of "C" or better in each course, 2) repeat no course more than once, 3) repeat no more than two (2) courses. Courses taken at another institution will be evaluated individually on the basis of content. Students in Florida community colleges can obtain information about equivalent courses from their counselors or by contacting the College of Nursing Admissions office (813-974-2191).

1. Mathematics/Quantitative Methods: completion of at least one course in mathematics that meets the Gordon Rule requirement and one course in statistics.
   a. Mathematics - one course in college level algebra must be completed with a grade of "C" or better. CLEP subject exams are acceptable.
   b. Statistics - one course in statistics must be completed with a grade of "C" or better. STA 3122

2. Natural Sciences: minimum of 14 semester credits (excluding anatomy, microbiology, and physiology). Each course taken toward meeting this requirement must have been completed with a grade of "C" or better. At least one course must include a laboratory or have
a corequisite laboratory course. At least 6 semester credits must have been completed by the admissions application deadline.

a. **Biology** - minimum of 6 semester credits. Courses should include content in 1) cell theory, 2) biological transport, 3) genetics, 4) evolution, 5) phylogentic survey of plant and animal kingdom, 6) ecology, etc. CLEP is acceptable. BSC 2010C, BOT 2010C, ZOO 2010C

b. **Chemistry** - A minimum of 6 semester credits. Courses should include content in 1) principles of chemistry, 2) structure of matter, 3) atomic and molecular structure, 4) states of matter, 5) chemical formulas and nomenclature, 6) solutions, 7) chemical kinetics and equilibrium, 8) theory and practice of quantitative analysis, 9) organic chemistry. Can be partially met with CLEP, CHM 2045, 2046 or *CHM 2030, 2031

*Chemistry sequence for non-science majors.

c. **Other** - the remaining credits can be earned by completing additional courses in biology and chemistry, or in genetics, physics, physical science, etc. (A course in non-quantitative physics is recommended but not required.)

3. **Social Sciences**: completion of each of the following with a grade of "C" or better in each course.

a. **American government** - one course in modern American government or state and local government. CLEP is acceptable. POS 2041, POS 2112, PAD 3003, POT 4204, POS 4424

b. **Anatomy and Physiology** - one course. A combined course in anatomy and physiology which is equivalent to APB 3190 is acceptable or individual courses. The ACT/PEP examination in anatomy and physiology is acceptable.

c. **Nutrition** - one course. College of Nursing Challenge Examination of University of Florida correspondence course are acceptable. HUN 2201

d. **Human Growth and Development (Life Span)** - Must include birth through aging process to death. CLEP is not acceptable. HUS 4005 and Social Community Behavior: community. CLEP is not offered every semester; therefore, the student should plan his or her enrollment schedule with care.

**CLEP Examinations**

In accordance with University policies, College Level Examination Program (CLEP) general and subject examinations may be taken in several areas. CLEP examinations must be taken according to the University or community college policies related to CLEP. The CLEP general examinations apply toward the distribution requirements at USF, and successful performance results in credit for any one or all five of the required areas. In addition, credit may be earned for a number of College of Nursing support courses, including: American Government POS 2041; English Composition ENC 1101, 1102; Biology BSC 2010C, BOT 2010C, ZOO 2010C; General Chemistry CHM 2045; and Statistics STA 3122. Additional information may be obtained from the Office of Evaluation and Testing, University of South Florida.

**ACT/PEP and College of Nursing Examinations**

Successful completion of the following examination(s) can be used to fulfill course requirements as designated below:

1. College of Nursing - Nutrition Challenge Examinations: a total of 3 semester credits can be earned by any undergraduate student to meet the course requirement in nutrition. Information about the College examination in nutrition may be obtained by contacting the College of Nursing Admissions Office, University of South Florida.

2. Registered nurses who are graduates of diploma programs may receive 23 semester general elective lower level credits through successful completion of the ACT/PEP examinations in nursing. These credits do not apply toward meeting the University requirement of 40 upper level credits, or toward meeting the requirements of the upper level nursing major. The credits earned by passing the ACT/PEP examinations in nursing apply only to the B.S. degree with a major in nursing program offered by the College of Nursing. Additional information about the ACT/PEP examinations may be obtained from the Office of Evaluation and Testing, University of South Florida.

3. Registered nurses who are graduates of associate degree programs may receive up to 23 semester general elective lower level credits for their previous nursing education.

4. Both generic and registered nurse students may earn up to 6 semester credits and fulfill the college’s prerequisite requirement in anatomy and physiology through successful completion of the ACT/PEP examination in anatomy and physiology, and up to 4 credits in microbiology through successful completion of the ACT/PEP examination in microbiology.

**Degree Requirements**

Students will be certified for the Bachelor of Science degree with a major in nursing upon completion of a minimum of 126 semester hours composed of general education requirements, science prerequisites (physical, biological, social and political), upper level and nursing electives, and required nursing courses.

A minimum grade of "C" or better must be attained in each course in the major and cumulative grade point ratio of 2.0 or better must be maintained throughout the program. At least 40 semester hours must be upper level work (courses numbered 3000 or above). At least 60 semester hours must be earned from a baccalaureate-degree-granting institution regardless of credit hours transferred from a community/ junior college unless prior written approval has been received from the college of the student's intended major.

**Nursing Courses - Generic Sequence**

**Junior Year (3 semesters)**

**NUR 3117** Introduction to Professional Nursing (3)

**NUR 3615** Nursing Process I (3)

**NUR 3615L** Nursing Intervention I (2)

**NUR 3066C** Client Assessment I (2)

**NUR 3929** Ethical-Legal Aspects in Nursing and Health Care (2)

**NUR 3456** Nursing Process II (2)

**NUR 3456L** Nursing Intervention II (3)

**NUR 3536** Nursing Process III (2)

**NUR 3536L** Nursing Intervention III (2)

**NUR 3067C** Introduction to Community Health Nursing (2)

**NUR 3836** Leadership-Management Aspects in Community Health Nursing (2)

**NUR 4285 C** Nursing Process IV (1)

**NUR 4256** Nursing Process V (2)

**NUR 4256L** Nursing Intervention IV (4)

**Senior Year (2 semesters)**

**NUR 4165** Introduction to Research (2)

**NUR 4257** Nursing Process VI (2)

**NUR 4257L** Nursing Intervention V (6)

**NUR 4258** Nursing Process VII (2)

**NUR 4258L** Nursing Process VIII (2)

**NUR 4837** Leadership/Management and Role Transition (3)

**NUR 4946L** Preceptorship (6)

In addition to the requirements listed above, a minimum of 10 credits in upper level electives will be required for graduation: at least six (6)
credits in upper level courses in general education (courses in arts, humanities, natural or behavioral sciences, economics, business or management, education, etc., are acceptable) and at least four (4) credits in nursing electives (NUR 4935, Selected Topics in Nursing, and/or NUR 4905C, Independent Study in Nursing, are currently used for this purpose).

### Nursing Courses - Registered Nurse Sequence

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 3007</td>
<td>Nursing Process</td>
<td>2</td>
</tr>
<tr>
<td>NUR 3029</td>
<td>Ethical-Legal Aspects of Nursing and Health Care</td>
<td>2</td>
</tr>
<tr>
<td>NUR 3117</td>
<td>Introduction to Professional Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NUR 3066C</td>
<td>Client Assessment I</td>
<td>2</td>
</tr>
<tr>
<td>NUR 3706</td>
<td>Nursing Concepts in Secondary Care</td>
<td>4</td>
</tr>
<tr>
<td>NUR 3706L</td>
<td>Nursing Practicum I</td>
<td>2</td>
</tr>
</tbody>
</table>

In addition to the requirements listed, a minimum of 10 credits in upper level electives is required for graduation: at least six (6) credits in upper level courses in general education (courses in arts, humanities, natural or behavior sciences, economics, business or management, education, etc., are acceptable) and at least four (4) credits in nursing electives (NUR 4935, Selected Topics in Nursing and/or NUR 4905C, Independent Study in Nursing are currently used for this purpose).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>NUR 4165</td>
<td>Introduction to Research</td>
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<tr>
<td>NUR 4707L</td>
<td>Nursing Concepts in Primary Care</td>
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<tr>
<td>NUR 4707L</td>
<td>Nursing Practicum II</td>
</tr>
<tr>
<td>NUR 4827C</td>
<td>Leadership/Management Concepts for Nursing</td>
</tr>
<tr>
<td>NUR 4943L</td>
<td>Practice</td>
</tr>
<tr>
<td></td>
<td>Nursing Practicum III</td>
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</table>

Public Health Education

The Department of Community and Family Health offers an accelerated entry program which enables qualified students to enter the Master of Public Health (MPH) degree program with a concentration in Public Health Education following the completion of 90 semester hours of undergraduate study (usually the end of the junior year). Full-time students are able to complete graduate degree requirements in 2 to 2-1/2 years. Interested individuals are encouraged to contact a health education faculty advisor during the term in which they expect to complete 60 undergraduate semester hours.

The MPH is a professional, non-thesis degree. The course of study is designed to prepare professional health educators to develop, implement, manage and evaluate programs which focus on health promotion and disease prevention. Individual and public health issues encompass the interrelationships of social, behavioral, legal, medical and economic factors. Therefore, the program emphasizes a multidisciplinary approach of developing strategies for the efficient utilization of health services, the adoption of self-care practices, and the promotion of healthier lifestyles. Career opportunities are available in a variety of work settings including hospitals and ambulatory care facilities, health maintenance organizations, voluntary health agencies, public and private school systems, colleges and universities, local and state health agencies, private industry and international health organizations.

Students seeking admission to the MPH degree program must have completed 90 undergraduate semester hours, achieved at least a 3.0 GPA, earned a combined verbal and quantitative score of at least 900 on the GRE, and satisfied the CLAST and Rule 6A-10.3 requirements.

In preparation for graduate studies, it is recommended that applicants show evidence of the successful completion of the following undergraduate coursework: personal health/health sciences, basic first aid, college mathematics through algebra, speech communication, technical or expository writing, general chemistry with lab, introductory biological science with lab, advanced biological science, introductory psychology, general anthropology, medical anthropology, introductory sociology, educational theory and method, and educational psychology.
Beginning in the Fall of 1980, the University of South Florida will establish a College of Arts and Sciences that will consist of the combined colleges of Arts and Letters, Natural Sciences, and Social and Behavioral Sciences. In addition, the Bachelor in Independent Studies program will be moved from the School of Extended Studies and Learning Technologies to the new College.

The social and behavioral sciences are primarily concerned with human beings: their history, their individual behavior, their social and political institutions, and their problems. The study of man by broadly-conceived methods of science contributes to an understanding of the individual in a social context. Such insight provides an essential component of a liberal education by instilling a more enlightened world view and by helping the student to become a better informed citizen realistically prepared for a fulfilling role in contemporary society.

The social and behavioral sciences deal not only with the human but also with the humane. While the basic disciplines are dedicated to the search for truth about the human condition, the applied social sciences seek to use the knowledge gained to alleviate significant social and personal problems. The setting of the University in the rapidly expanding Tampa Bay metropolitan area provides exceptional opportunities for the development of urban related applied social science activities.

The Human Resources Institute of the College of Social and Behavioral Sciences was established to address critical issues in the human resources sector through a comprehensive program of research and service. By authorization of the Board of Regents, a Program of Emphasis in Human Services was established at the University of South Florida for the enhancement of selected programs including several in the College of Social and Behavioral Sciences. Because of its balance of basic and applied programs, the College is uniquely structured to allow students to gain experience and background for future applications in human service fields, in government, in business and in other fields of endeavor, or to pursue graduate study in several disciplines.

BACCALAUREATE LEVEL DEGREE PROGRAMS

Admission to the College

Admission to the College of Social and Behavioral Sciences is open to students who have been accepted to the University of South Florida and who declare a major in a particular field within the college. The Bachelor of Social Work, however, is a limited access degree program and does require satisfaction of additional criteria prior to admission.

Undergraduate students must submit a formal application for admission to the college. This usually occurs during Orientation and Advising for New Students. This application is also available in the College Office of Academic Programs and Student Records for continuing students. Following admission to the College, students will then be counseled by an academic adviser in his/her major field. Information about majors, departments, programs, advising, and other services of the college may be obtained from the Coordinator of Undergraduate Student Affairs, College of Social and Behavioral Sciences, University of South Florida, Tampa, Florida 33620. Any student in the University may take courses in the College of Social and Behavioral Sciences. Students in other colleges or adults in the community may select social and behavioral science courses of particular interest.

Honors Programs

Faculty and selected students in the college participate in the University Honors Program. In addition, the College of Social and Behavioral Sciences offers undergraduate honors programs in four fields: Anthropology, History, Political Science, and Psychology. Students interested in one of these honors programs should consult the appropriate department for further information.

General Requirements for Degrees

The College of Social and Behavioral Sciences currently offers three undergraduate degrees: Bachelor of Arts, Bachelor of Science and Bachelor of Social Work. Requirements for graduation are summarized as follows:

1. 120 credits with at least a "C" average (2.0) in courses taken at the University of South Florida. At least 60 of these credits must be from baccalaureate degree granting institutions. At least 40 of these 120 credits must be in courses numbered 3000 or above. (A maximum of two credits of physical education courses may be counted toward graduation requirements; no credits in physical education are required.) No more than 9 credits from R.O.T. C. (aerospace studies, military science), may count toward graduation.

2. 40 credits of general distribution courses are required by the University in the areas of English Composition, Fine Arts and Humanities, Mathematics and Quantitative Methods, Natural Sciences, and Social and Behavioral Sciences. (See General Distribution Requirements.) Transfer students with standard AA degrees will be considered to have met the University's General Education Requirements; however, such students who have not gained exposure to each of the five areas are strongly encouraged to make up deficiencies early in their USF careers.

3. 12 credits of courses requiring written assignments of 6000 words; 6 credits of college level math. (Transfer students with AA degrees from Florida public institutions will be considered to have met this requirement.) These courses may be used to satisfy General Distribution Requirements.

4. Completion of a major in a subject or an integrated major, with at least a "C" average (2.0), or 2.75 in the case of Social Work majors. (See following pages for requirements in specific majors offered in the college.)

5. Students graduating with a Bachelor of Arts degree must demonstrate competency in a foreign language.

6. 80 credits outside the major.

7. Credits transferred from other institutions will not be included in the computation of the grade point average for graduation. To be eligible for graduation with honors requires at least 3.5 average in all USF work and all previous college work.

8. A student must complete at least 30 of the last 60 credits in academic residence at USF. The approval of the Dean of the college granting the degree must be secured for any transfer credits offered for any part of these last 60 hours.

9. Satisfactory completion of the College Level Academic Skills Test, and the writing and computation course requirements of 6A-10.30.

10. A maximum of 20 hours of optional S/U credits may be counted towards the 120 hours needed for the degree. None of the 20 credits may be taken in the student's major.

Students are encouraged to consult regularly with an academic adviser in his/her major. It must be noted, however, that the student assumes full responsibility for satisfying all University, College, and departmental requirements for graduation. Students must apply for graduation by the deadline at the beginning of their last term of residence at USF. Students who receive permission to complete requirements for the B.A., B.S. or B.S.W. as transient students should apply for graduation the term after all coursework has been completed.

Advice to Freshmen and Lower Level Transfers

Work with an adviser, plan a schedule each semester of 12 to 18 credits. Each term until you reach 60 hours take:

1. At least one course with writing assignments of 6000 or more words until you have completed 12 credits of such courses. Start with ENC 1101 and 1102 unless you have received CLEP credit for Freshman English.

2. A college level math course (if you are eligible following math testing) until you have completed 6 credits, or a natural science course (suggestions: CHM 2021, PHY 2038, GLY 2850, GLY 3006, OCE 3001, any AST) until you have completed 6 credits. Six credits
in each area are required for graduation.
3. One course in the Social Sciences designed for freshmen and sophomores. These courses have prefixes of AFA, AMH, EAH, GEA, SYG, POS, SSI, and WST, and are at the 1000 or 2000 levels.
4. One course in the Behavioral Sciences from among ANT 2000, PSY 2012, SYG 2000. As sophomores, you may also choose from ANT 3005, CCJ 3003, DEP 3103, GEY 3000, HUS 3001, SPA 4004, SSI 2221.
5. An elective outside the College of Social and Behavioral Sciences. You are most likely to find appropriate courses in the Colleges of Arts and Letters, Fine Arts, and Natural Sciences. At least 6 of these credits should be in the humanities, unless you have chosen humanities courses to fulfill item 1 above.

Programs Leading to the Baccalaureate Degree

The College of Social and Behavioral Sciences offers a major in 13 fields as described in the following pages. In addition to the departmental majors, interdisciplinary majors are offered. (See Interdisciplinary Social Sciences, International Studies, and Social Science Education listed below.) Economics offers two majors, one in the College of Social and Behavioral Sciences and the other in the College of Business Administration.

Bachelor of Arts
- African and Afro-American Studies (AFA)
- Anthropology (ANT)
- Criminology (CCJ)
- Economics (ECN)
- Geography (GPY)
- Gerontology (GEY)
- History (HTY)
- Interdisciplinary Social Sciences (ISS)
- International Studies (INT)
- Political Science (POL)
- Psychology (PSY)
- Sociology (SOC)
- Social Science Education (SSE)*
- Women’s Studies (WST)

Bachelor of Science Degree
- Gerontology (GES)

Bachelor of Social Work Degree (B.S.W.)
- Social Work (SOK)

*Offered jointly with the College of Education.

Special Non-Degree Programs

The OFF-CAMPUS TERM PROGRAM offers a wide variety of opportunities for self-designed, supervised educational experiences for credit. This program is presently housed administratively in the Division of Interdisciplinary Social Sciences, and the courses are listed under Off-Campus Term and Interdisciplinary Social Sciences.

The HUMAN SERVICES courses are designed for students interested in careers in the human sciences and services, and may be taken in conjunction with any major or by special students. These courses are coordinated by the Department of Gerontology, and the courses are listed as:
- HUS 3001
- HUS 4020
- HUS 4700
- SOW 4332
- HUS 4100
- HUS 5325

Certificate of Interpretation

For the Deaf

The College of Social and Behavioral Sciences offers a Certificate in Interpretation for the Deaf for students who want to facilitate the communicative needs of the deaf in our complex society. The certificate program incorporates academic training with practice designed to provide the student with interpreting experiences in a variety of situations. Students seeking this certificate must meet the admission requirements of the University and possess as a minimum the sign language proficiency equivalent of a Level II score on the Quality Assurance Examination for Sign Language. Information and advice about the certificate program may be obtained from the Interpreter Training Program Coordinator in the Department of Communication Sciences and Disorders. The program is open to students in all colleges.

The certificate program consists of the following courses:
- SPA 4000 (3)
- SPA 4332 (3)
- SPA 4930-003 (3)
- SPA 4363 (3)
- SPA 4930-001 (3)
- SPA 4050-004 (2)
- SPA 4331 (2)
- SPA 4930-002 (3)
- SPA 4050-004 (2)

Approval by the Coordinator of the Interpreter Training Program must be obtained prior to enrollment in this certificate training program. When the student has completed the above requirements, the Coordinator of the Interpreter Training Program will recommend the student for the certificate.

Certificate in Latin American Studies

The College of Social and Behavioral Sciences offers a Certificate in Latin American Studies for students who wish to gain an intensive multi-disciplinary understanding of this important area.

A minimum of 24 semester hours is required of all students seeking such a certificate. Of these, at least 14 must be planned around the following core courses:
- GEA 3400 Geography of Latin America
- LAH 3200 Modern Latin America
- CPO 4930 Comparative Government and Politics (Latin America)
- SPN 3520 Spanish American Civilization; or equivalent in original Language.

The remaining 10 hours must be selected from other specified courses with Latin American content, a list of which is available from the Latin American Studies Coordinator.

In addition, students seeking a Certificate in Latin American Studies must have ability in Spanish, Portuguese, or another major Indo-American language or must have completed no less than two semesters of study in that language, or its equivalent. It is hoped that the student will develop an even higher level of competency in one language and at least a minimum proficiency in a second language. When the student has completed the above requirements, the Latin American Studies Coordinator will recommend the student for the Certificate, which will be awarded upon the successful completion of all degree requirements for the major.

Information and advice about the certificate program may be obtained from the Latin American Coordinator or the Associate Dean. Only degree-seeking undergraduate students may earn a Certificate in Latin American Studies. The program is open to all majors in all colleges.

Academic Minor Programs

In order to help students develop some concentration in elective work taken in conjunction with their chosen major, the College of Social and Behavioral Sciences offers minors in the following fields: African Studies, Afro-American Studies, Anthropology, Criminology, Economics, Geography, History, Human Services, International Studies, Manual Communications, Political Science, Psychology, Sociology, and Women’s Studies. (See following pages for requirements in specific minors offered in the college.) There are certain restrictions that apply to students earning a minor in the College of Social and Behavioral Sciences: (1) students who major and minor in the College of Social and Behavioral Sciences may not use courses in the major for the minor or for general distribution requirements; (2) only degree-seeking students may earn a minor in the social and behavioral sciences; and (3) ISS majors may not earn a minor in any of the social and behavioral sciences incorporated in their contracts. Minors will be certified at the time of graduation.
PROGRAMS AND CURRICULA

ANTHROPOLOGY (ANT)

Anthropology aims at comprehending people as biological and social beings. It is concerned with all forms of people through time and space. One consequence of this broad-ranging view is the presence within anthropology of four branches: physical anthropology, archaeology, cultural anthropology, and linguistics. Exposure to anthropological information and the cross-cultural perspective produces heightened sensitivity in the student to the world about him/her. This helps the student to adopt an intellectual posture of disciplined skepticism with respect to any scheme which purports to define and account for regularities in human life.

In response to an increasing interest on the part of students, an undergraduate focus in applied anthropology has been created to offer the department's majors the option of including career training as part of their anthropology curriculum. The focus includes emphasis in applied anthropology coursework and a practicum course in which the student applies anthropological method and theory in off-campus settings.

In 1986 the department instituted an honors program to provide its best students with an opportunity to engage in a significant academic experience. Outstanding seniors may participate in a year-long course of study and original research in an area of their choosing under the guidance of a faculty mentor.

Students majoring in other fields may find anthropology coursework an exciting and valuable supplement to their primary academic interest. A minor in anthropology has been developed with this purpose in mind. The minor program is structured to allow the student maximum flexibility in course selection within a broadly defined progression of anthropological concerns. Thus, the student is able to tailor a minor in anthropology to best suit special wants and needs in the context of an overall curriculum.

The M.A. program, initiated in 1974, was the first in the USA to focus on career training for the practice of applied anthropology. The student pursues major studies in one of three tracks: applied urban and medical anthropology and public archaeology (cultural resources management). In addition to core seminars in each of the four major branches of anthropology required of all students, each track has its own specialty courses. Each student performs a full-time internship for one semester during which he/she works on a problem mutually defined and negotiated by the student, a faculty advisor, and a professional supervisor from the agency in which the internship is conducted. By 1986 over 100 graduates had been specifically trained for nonacademic employment in governmental and private-sector agencies and organizations. Graduates are employed in administration, program evaluation, planning, and research.

The Ph.D. in Applied Anthropology is the first such program in the USA. Its primary goal is to train students for nonacademic employment in such domains of application as health practice and services delivery, community, regional and international development, and urban planning, design, and services delivery. Training is also provided for those interested in teaching applied anthropology in academic settings. Each student performs a full-time internship for two semesters during which she/he works as a member of the professional staff of a governmental or private-sector agency or organization engaged in problem-solving in the USA or elsewhere. The Ph.D. program, while independent, complements the M.A. program. The deadline for receipt of all application materials for admission in Fall Semester is March 1, for admission in either Spring or Summer Semester the deadline is November 1 of the preceding year.

The Center for Applied Anthropology is in the Human Resources Institute, College of Social and Behavioral Sciences. The Center is concerned with applying anthropological knowledge, theory, method, and perspectives to problems of contemporary society. Illustrative areas of activity include human services needs assessment, program planning and evaluation, social and environmental impact assessment, and public policy analysis.

Requirements for the B.A. Degree in Anthropology (ANT)

The major in Anthropology consists of a minimum of 33 credit hours. ANT 2000 is prerequisite to all subsequent courses. ANT 3100, ANT 3410, ANT 3511 and ANT 3610 are required as intermediate level training in the major subdivisions of the field, and ANT 4034 and ANT 4935 complete the specific requirements. Majors are required to complete a minimum of 12 hours of 4000-level elective coursework, including courses from at least three of the four subfields areas shown below. ANT 3511 counts in Area IV (Natural Sciences) of the General Distribution Requirements for non-majors.

Archaeology
- ANT 4133 (3) ANT 4172 (3) ANT 4124 (4)
- ANT 4153 (3) ANT 4181 (4) ANT 4158 (4)
- ANT 4162 (3) ANT 4190 (4) ANT 4163 (3)

Physical Anthropology
- ANT 4542 (3) ANT 4583 (3) ANT 4586 (3)
- ANT 4552 (3)

Anthropological Linguistics
- ANT 4620 (3) ANT 4750 (3)

Cultural Anthropology
- ANT 4226 (3) ANT 4316 (3) ANT 4462 (3)
- ANT 4231 (3) ANT 4326 (3) ANT 4495 (3)
- ANT 4241 (3) ANT 4340 (3) MUH 4521 (3)
- ANT 4302 (3) ANT 4367 (3) ANT 4705 (3)
- ANT 4305 (3) ANT 4432 (3) ANT 4312 (3)
- ANT 4442 (3)

Anthropology majors are urged to become competent readers and speakers of a relevant foreign language, to acquire communicative and quantitative skills appropriate to their interests, and to achieve at least a minimal level of computer literacy. Exceptions to course prerequisites require the consent of the instructor. Required Core Courses (21 cr. hrs.)

- ANT 2000 (3) ANT 3511 (3) ANT 4034 (3)
- ANT 3100 (3) ANT 3610 (3) ANT 4935 (3)
- ANT 3410 (3)

Requirements for the Minor in Anthropology

The minor in Anthropology consists of a minimum of 18 credit hours with a "C" average (2.0), distributed among three areas. Students will normally progress through these areas in the order listed below, selecting courses prerequisite or otherwise appropriate to courses desired in subsequent areas. Exceptions to this pattern must be approved by the department's undergraduate advisor. Students are urged to consult with the major and minor student advisors to create the most beneficial specific set of courses.

1. 2000-level required core course (3 cr. hrs.)
- ANT 2000 (3)

2. 3000-level subfield courses (3-6 cr. hrs.)
- ANT 3100 (3) ANT 3511 (3)
- ANT 3410 (3) ANT 3610 (3)

3. 4000-level elective courses (9-12 cr. hrs.) (as described above)

Requirements for the Undergraduate

Focus in Applied Anthropology

This sequence is designed for Anthropology majors who wish to include career training as part of their Anthropology curriculum. The student is required to complete the major in Anthropology, including guided training in Applied Anthropology as determined through consultation with the undergraduate adviser.
The student must take ANT 4907 (3), the setting in which the off-campus practicum is pursued. A departmental Letter of Achievement is awarded upon graduation and successful completion of Focus requirements with a "B" average (3.0). Information regarding admission into the Focus program may be obtained from the department undergraduate advisor.

Anthropology Honors Program

The purpose of the Honors Program is to provide outstanding Anthropology undergraduates with advanced, individually tailored training in areas of anthropology of interest to them. The program, operating independently of the major itself, involves a year of coursework and research culminating in the writing of an Honors thesis. Students in the second semester of their junior year, prior to completion of 90 semester hours, may apply to the program, which begins in the fall semester. Admission is competitive, based on the student's overall academic record (minimal 3.0 GPA overall, 3.5 GPA for USF anthropology course work) and a letter of recommendation from a member of the Department of Anthropology. Successful completion of the program requires maintenance of a 3.0 overall and a 3.5 major GPA levels, completion of ANT 4932 (4) (Honors Seminar) with a grade of "B" or better, completion of ANT 497(3) (Honors Thesis) with a grade of "S" and completion of all other requirements for graduation. See the Anthropology Department Undergraduate Advisor for further information and application forms.

COMMUNICATION SCIENCES AND DISORDERS (ISH, ISA)

Undergraduate concentrations in the Communication Sciences and Disorders are available through the Division of Interdisciplinary Social Sciences. Concentrations in Speech-Language-Hearing Science and American Sign Language lead to the B.A. degree. The ISS undergraduate concentration in Speech-Language-Hearing Science provides preprofessional study for Master's level preparation as a Speech-Language Pathologist or Audiologist. The American Sign Language (ASL) concentration focuses on the study of deaf culture through the development of communicative proficiency in ASL and prepares individuals to work with the deaf in a variety of social service agencies. Students interested in these concentrations should contact the Department of Communication Sciences and Disorders regarding academic advising. The department also offers the Master's of Science (M.S.) degree in Speech-Language Pathology and in Audiology, including Deaf Education, as well as a Ph.D. specialization in Speech, Language, or Hearing Science through the department of Psychology (Experimental Psychology). A 5-year M.S. course of study combining undergraduate with graduate study is also available; however, enrollment into this program is currently not available.

ISS Concentrations in Communication Sciences and Disorders

A. General Information

All undergraduates seeking enrollment in this concentration must be in good academic standing as undergraduate students at the University of South Florida. Prior to beginning coursework in the junior year in the concentration, most students should complete general academic distribution requirements, successfully pass the CLAST, and have achieved 60 semester hours of coursework. Students with advising concerns relative to their first 60 semester hours are encouraged to meet with undergraduate departmental advisors since required and recommended courses for admission into the ISS concentration will also meet other university requirements.

B. Prerequisites for Admission

I. Required Courses

   I. BSC 2010C or ANT 3511 or an equivalent life science;
   II. Recommended Courses

      LIN 3010 or LIN 3801 and CGS 3060

   Courses in this category should also be completed with a minimum grade of "C."

C. Other Requirements for the ISS Degree (min. 9 cr. hrs.)

   I. Required Courses (5-7 cr. hrs.)

      STA 3122 (3) or PSY 3213 (4) and ISS 3010 (3)

   II. Additional Courses (3 cr. hrs.)

      SVG 2000 or ANT 3000 or PSY 3013

D. Speech-Language-Hearing Concentration (min. 35-37 cr. hrs.)

   Coursework is sequenced for the ISS Concentration in Speech-Language-Hearing Science. All students must complete study in basic knowledge of the communication sciences and in basic knowledge of communication disorders. In the senior year, a student can select a focus area in either Speech-Language Pathology or in Hearing Impairment. Upon admission to the concentration, each student will be assigned an advisor in order to provide guidance in academic planning.

   The course of study is:

   SPA 3002 (3) SPA 3030 (3) SPA 3101 (3)
   SPA 3110 (3) SPA 3112 (2) SPA 3011 (3)
   SPA 4050 (2) SPA 4093 (3) SPA 4201 (3)
   SPA 4363 (3) PSY 4931 (3) (recommended).

   Speech-Language Pathology Focus

   SPA 3380 (3) & 3380L (1) (recommended).
   SPA 4140 (3) SPA 4210 (3) SPA 4222 (3)

   Hearing Impairment Focus

   SPA 4140 (3) SPA 3380 (3) & SPA 3380L (1)

   Students interested in teacher certification in deaf education must complete required education courses in addition to all ISS requirements listed under Sections B and C. Effective July 1989, the academic entry requirement into the public school system for Speech-Language Pathologists will be the Master's degree.

E. American Sign Language Concentration (min. 30 cr. hrs.)

   The ASL concentration seeks to educate students to communicate with the deaf and to apply this knowledge in work settings where knowledge of the deaf culture is essential for the provision of social services. This ISS concentration is not intended to prepare interpreters for the deaf although exceptionally proficient students may qualify as interpreters. This concentration also does not qualify students for admission into the M.S. programs in Speech-Language Pathology or Clinical and Rehabilitation Audiology, including Deaf Education. Those students choosing to become teachers of the deaf must pursue the ISS concentration in Speech-Language-Hearing Science and obtain the M.S. degree.

   General admission requirements, recommended admission requirements, and ISS requirements are identical to the ISS concentration in Speech-Language-Hearing Science. The specific course of study for the ASL concentration also assumes that the student has completed an A.A. degree or its equivalency. Upon admission to the concentration, each student will be assigned an advisor for the purpose of academic planning. The following courses are all required:

   SPA 3002 (3) SPA 3030 (3) SPA 3110 (3)
   SPA 3380 (3) & 3380L (1) SPA 3380L (1)
   SPA 4093 (3) SPA 4337 (3) SPA 4363 (3)
   SPA 4082 (3) SPA 4382L (1)
   SPA 4383 (3) SPA 4383L (1)
   other electives (6).

Minimum Grade for Majors

A student must receive a "C" grade or better in all courses within the major and those that are required prerequisites. Should a student fail a course in the area of concentration during the first year in the major, no more than two courses may be repeated for grade forgiveness. Courses may not be repeated in the second year of the major.

CRIMINOLOGY (CCJ)

The major in criminology provides students with an in-depth exposure to the total criminal justice system including law enforcement, detention, the judiciary, corrections, and probation and parole. The program concentrates on achieving balance in the above aspects of the system from the perspective of the criminal justice professional, the offender, and society.
The objective of the undergraduate program in criminology is to develop a sound educational basis for professional training in one or more of the specialized areas comprising the modern urban Criminal Justice System.

Requirements for the B.A. Degree:
A minimum of 38 semester hours is required of all undergraduate majors in criminology including the following courses or their equivalents:

- CCJ 3210 (3) or CCJ 4360 (3)
- CCJ 3610 (3)
- CCJ 3701 (3) or CCJ 4700 (3)
- CCJ 4834 (3) or CCJ 4110 (3)

*Subject to Departmental approval for required credit.

In addition to the above, a minimum of 15 hours in criminology must be selected by the student to complete the requirements.

Transfer students should be aware that by University regulation they are obligated to establish academic residency by completing the equivalent of one academic year (30 semester hours) in "on-campus" courses. All undergraduate transfer students electing criminology as their major will be required, moreover, to take a minimum of 27 credits in major coursework at the University of South Florida.

These residence requirements are designed to insure that transfer students who subsequently receive their baccalaureate degree from the University of South Florida with a major in criminology will have been exposed to the same body of knowledge in their major as those students who complete all or a major portion of their coursework at the University of South Florida.

Any student who receives a grade of "D" or lower in more than one USF CCJ course will be automatically barred from continuing as a criminology major.

Requirements for a Minor in Criminology
The Department of Criminology offers a minor in Criminology. The minor will consist of three required courses (CCJ 3202, 3210, 3610) totalling 9 credit hours, and the selection of two of the following 3 hour courses (CCJ 4110, 4360, 4501, 4604) for a total of 15 hours. Students must receive approval from the Department prior to starting their minor work. Students minoring in Criminology will be subject to the Department's '2 D' Rule.

ECONOMICS (ECN)
Economics offers a clear, logical way of thinking about complicated business problems as well as contemporary societal issues such as controlling unemployment, inflation, pollution, and crime. The department offers both major and minor programs requiring courses in basic economic analysis. With elective courses offered in industrial organization, labor economics, international trade, public finance, monetary economics, econometrics, history of economic thought, economic development, comparative economic systems, and other areas, students may tailor their study toward business, teaching, or government service careers. The economics curriculum also provides excellent preparation for those students seeking graduate or professional degrees in social sciences, law, or business.

Requirements for the B.A. Degree
A student may earn a Bachelor of Arts degree with a major in Economics by completing satisfactorily 33 credits in Economics in addition to college requirements. These 33 credits include:

- ECO 2023 (3)
- GEB 3121 (3)
- ECO 3203 (3)
- ECO 2013 (3)
- ECO 3101 (3)
- ECO 4303 (3)
- GEB 2111 (3)

The student is required to have obtained a grade of "C" in ECO 3101, Intermediate Price Theory, in order to enroll in any course for which ECO 3101 is a prerequisite.

In addition to this core, students are required to select 12 hours of electives. Students are encouraged to select 3000-level courses in several of the applied areas during their junior year. At least 9 of the 12 hours of electives must be in courses for which ECO 3101 is a prerequisite. The remaining economics elective must be selected from those upper level courses that provide the type of program that best suits the student's interests and objectives. Not more than 3 hours of credit may be earned in ECO 4905 and ECO 4914.

Economics majors working at the regional campuses cannot expect to fulfill all economics course requirements at those regional campuses.

Students majoring in economics are encouraged to supplement their programs with appropriate courses in other social sciences. Political science, psychology, sociology, and others contribute greatly to an enriched plan of study. Similarly, a variety of courses in economics are designed to permit students majoring in other disciplines to acquire the skills and insights provided in economics.

Requirements for a Minor in Economics
Students majoring in Social Sciences, as well as students from other colleges, may minor in economics. Total requirements are:

1. A minor must include these four courses in basic economics:
   - ECO 2023 Economic Principles: Microeconomics (3)
   - ECO 2013 Economic Principles: Macroeconomics (3)
   - ECO 3101 Intermediate Price Theory (3)
   - ECO 3203 Intermediate Income & Monetary Analysis (3)

2. In addition, a minor must include two or more upper level courses taught in the Economics Department (excluding the variable credit courses ECO 4905 and 4914), bringing the total credit hours in economics to a minimum of 18. GEB 3121, Business and Economic Statistics II, or its equivalent, is acceptable for credit in a minor.

3. Before being recognized as a minor in economics, a student must obtain approval by the adviser in the Economics Department of the courses involved in the student's minor program.

4. A grade point average of 2.0 or better must be achieved in the minor coursework for a student to be certified for graduation with a minor in economics.

5. At least 12 of the required 18 credits must be taken in residence at USF.

GEOGRAPHY (GYP)
Requirements for the B.A. Degree:
Geography explains the variable character of the earth's surface. The two major divisions of geography are physical and cultural (human). Physical geography includes the study of earth-sun relationships, weather, climate, and natural features of the landscape, such as landforms, soils, vegetation, and hydrology. Cultural geography studies people, their various cultures, levels of technology, and economic activities that operate differentially to alter the natural landscape.

Geography's overriding purpose is to understand the earth as the home of man. A major concern of geography is the wise use of the earth's surface. The geography's overriding purpose is to understand the earth as the home of man. A major concern of geography is the wise use of the earth's surface. The geography's overriding purpose is to understand the earth as the home of man. A major concern of geography is the wise use of the earth's surface. The geography's overriding purpose is to understand the earth as the home of man. A major concern of geography is the wise use of the earth's surface. The geography's overriding purpose is to understand the earth as the home of man. A major concern of geography is the wise use of the earth's surface.

Students are encouraged to take elective credits in a wide variety of disciplines because of the cross-disciplinary approach to geography. Geographers typically work as urban and regional planners, environmental specialists, or aerial photographic analysts, and resource managers.

A major in geography consists of 36 credit hours as follows:

Required core courses (12 credit hours):
- GEO 3013 (4)
- GEO 3014 (4)
- GEO 4100C (4)

One of the following (4 credit hours):
- GEO 4280C (4)
- MET 4002 (4)
- MET 4010 (4)

Two of the following (8 credit hours):
- GEO 3402 (4)
- GEO 4440 (4)
- GEO 4470 (4)
- GEO 4472 (4)
- GEO 4460 (4)
- GEO 4502 (4)
- GEO 4602 (4)

One course with a GEA prefix (4 credit hours):

Any additional 8 credit hours in geography, excluding:
- GEO 3901
- GEO 4900
- GEO 4910
- GEO 3931C
- GEO 1930
- GEO 4201
Requirements for the Minor:
A minor in Geography consists of sixteen hours, with a minimum grade-point average of 2.0. The required courses are:
- GEA 3000 (4)
- GEO 3013 (4)
- GEO 3014 (4)
One upper level elective (GEA, GEO, MET, or URP 3000-5000 level) (4).

GERONTOLOGY (GEY)
Gerontology is the study of the process of human aging in all its many aspects: physical, psychological, and social. In the Department of Gerontology, particular emphasis is placed upon applied gerontology, with the goal of educating students who in their professional careers in the field of aging will work to sustain or improve the quality of life of older persons. To this end the Department offers the degrees of Bachelor of Arts in Gerontology, Bachelor of Science in Gerontology, and Master of Arts in Gerontology.

Requirements for the B.A. Degree:
The Bachelor of Arts Degree in Gerontology entails 37 semester hours of required course work. In this program the course of study is intended to provide students with a liberal education in gerontology and some exposure to the various career opportunities in the field of aging. This degree is especially appropriate for students who are undecided about their eventual career goals in aging or who plan to pursue graduate work in gerontology or some other field.

Required Courses:
- GEY 3000 (3)
- HUS 4020 (4)
- GEY 4640 (3)

Requirements for the B.S. Degree:
The Bachelor of Science Degree in Gerontology is a specialist degree which, in addition to providing students with a basic education in gerontology, is intended to prepare them for entry level positions in Nursing Home Administration. It is especially appropriate for students who intend to begin working immediately following completion of the degree program.

Required courses:
- MAN 3025 (3)
- GEY 3601 (3)
- GY 4328 (3)
- MAN 3240 (3)
- GEY 4360 (3)
- GEY 4293 (3)
- MAN 3301 (3)
- GEY 4640 (3)
- GEY 4945 (6)
- BUL 3112 (3)
- GEY 4327 (3)

Prior to taking the courses required in the major, students must complete the following twelve (12) hours of prerequisites: ACG 2001, ACG 2011, CGS 2000, and GEY 3000.

These courses are intended to reflect educational requirements mandated by the State of Florida and specified in Chapter 212.11 of the Florida Administrative Code.

The gerontology prerequisite can only be satisfied by a student’s having taken GEY 3000 at this university or its equivalent at another institution. The human services prerequisite can be satisfied either by a student’s having taken HUS 3001 or an equivalent course at another institution or by having had suitable work experience in the human services. The prerequisites of accounting can be fulfilled by taking ACG 2001 and ACG 2011 at this university or comparable work at another institution.

Students interested in either the B.A. or the B.S. option should contact the Department as early as possible in their careers at the University of South Florida.

Minor in Human Services
An undergraduate minor in Human Services is available for students interested in pursuing careers in fields such as social welfare, health care and mental health care, rehabilitation, and corrections. This minor may be taken in conjunction with any undergraduate major but it should be particularly beneficial to persons who are majoring in such disciplines as anthropology, criminal justice, nursing, political science, psychology, social work, and sociology. The Human Services minor is coordinated by the Department of Gerontology. Requirements for the minor are a total of 15 hours of the following upper-level courses:
- HUS 3001
- HUS 4100
- HUS 5325
- HUS 4700
- HUS 5505
- HUS 4020

Center for Applied Gerontology
The activities of the Center for Applied Gerontology include research on aging, program evaluation, short-term training of agency personnel and other activities intended to complement the educational program in gerontology.

HISTORY (HTY)
Requirements for the B.A. Degree:
A minimum of 32 semester hours is required for a major in history. Twelve hours of 2000 level courses, or their equivalent, constitute the lower level requirements. At least 12 hours of course work must be drawn from the 3000-4000 level in addition to HIS 4104 and 4936, which constitute the upper level requirements for the degree. It is recommended that history majors take ENC 3310, "Advanced Expository Writing," SPC 2023, "Fundamentals of Speech Communication," LIS 2001, "Use of the Library," and additional hours drawn from the following disciplines: African and Afro-American Studies, American Studies, Anthropology, Economics, Geography, Political Science, Interdisciplinary Social Sciences, Psychology, Philosophy, Sociology, Literature, the Humanities, and the Fine Arts. Majors intending to pursue graduate work should take a minimum of two years of classical or modern foreign language.

Requirements for the Honors Program:
The department’s honors program challenges the superior student to achieve academic excellence through individual research and individualized instruction. Admission to the program will be competitive. A minimum of 15 students per year will be selected. They must meet the following criteria: 20 hours (at least 8 at USF) of history courses (3.5 GPA or better), 75 hours total course work (3.5 GPA or better), and recommendation by a USF history faculty member. Honors students will be assigned faculty advisors who will guide their research and the writing of an honors thesis. Students will also participate in an Honors Colloquium. Students interested in the program should contact the departmental undergraduate advisor for details of this demanding and rewarding program.

Requirements for the Minor:
The Department of History offers two options for students interested in the minor in History. Option one requires four history courses (at least 15 hours) at the 3000 and 4000 levels drawn from a minimum of three of the following fields: a) Ancient; b) Medieval; c) Modern European; d) United States; e) Non-Western; Latin American, Asian, African. Option two entails a 15-hour program organized and contracted by the student and the department around the specific needs of the student’s major program. In both plans, a minimum of 8 hours must be completed at the University of South Florida and the student must maintain a 2.0 GPA in the minor. Certification of the minor will be supervised by the department. Students interested in a minor in history are encouraged to see the History department advisor as early in their undergraduate program as possible.

DIVISION OF INTERDISCIPLINARY SOCIAL SCIENCES
(AFA/OCT/ISS/WST)
The Division of Interdisciplinary Social Sciences offers three academic majors: the College major (Interdisciplinary Social Sciences), and the majors in African and Afro-American Studies, and Women’s Studies. It offers a minor in Women’s Studies, a minor in African and Afro-American Studies, a series of interdisciplinary social science core courses, and a series of independent study courses through the Off-Campus Term
**AFRICAN AND AFRO-AMERICAN STUDIES (AFA)**

The African and Afro-American Studies Program provides a quality undergraduate education leading to a Bachelor of Arts degree in African and Afro-American Studies. Essentially, it is a service program which provides opportunities for all students to broaden the bases of their knowledge of the entire human experience and intercultural understanding so essential to living in a multi-racial society and a world that has become a global village. It provides a new horizon in liberal education that seeks reunification of the knowledge of human experience and strikes at the narrowness and ethnocentrism of the traditional disciplines which tended to contribute much to race prejudice and misunderstanding.

In the interest of general education the program provides a basic and broad knowledge about Africa and peoples of African descent from prehistoric times to the turbulent present. Part of its mission is to assist black students to achieve a more dignifying identity and fuller participation in the mainstream of their society and nation. It attempts to help them to develop a greater awareness of one's self and one's talents and to provide educational and research opportunities necessary for the acquisition and understanding of political and economic realities and tools that must enable black people and other minorities to become effective determinants of their own political and economic life. To the non-black student the program provides an opportunity to acquire additional perspectives from which to view, analyze and deal with contemporary social issues and political problems.

Admission to the African and Afro-American Studies major is open to all students who have been duly admitted to the University of South Florida by the Office of Admissions and who file necessary papers in the Office of the Coordinator of Undergraduate Student Affairs, College of Social and Behavioral Sciences, to declare a major in the field. All of the program's courses are open to all other students - regular and special - of the University.

**Requirements for the B.A. Degree:**
The major in African and Afro-American Studies consists of a minimum of 36 hours in the field specified as follows:

**Required Core Courses (15 cr. hrs.)**
- AFA 2001 (3)
- AFH 3200 (3)
- AMH 3572 (3)
- AFH 3100 (3)
- AMH 3571 (3)

**Required Supporting Core Courses (6 cr. Hrs.)**
- AFA 4150 (3)
- PHM 4120 (3)
- AFS 3311 (3)

**Suggested Elective Courses (15 cr. hrs.)**
- AFA 4331 (3)
- INR 4254 (3)
- PUP 3313 (3)
- HUM 3420 (3)
- AFA 4900 (2-3)
- AFA 4931 (1-3)
- CPO 4204 (3)
- CPO 4244 (3)
- CPO 4254 (3)

**Electives (9 hours) selected from:**
- AFA 4150 (3)
- CPO 4204 (3)
- INR 4254 (3)
- AFA 4931 (1-3)
- CPO 4244 (3)
- PUP 3313 (3)
- AFS 3311 (3)
- HUM 3420 (3)

**Interdisciplinary Social Science Major (ISS)**

This program of study is designed to provide an interdisciplinary focus in the social sciences for students who are interested in a broad educational experience that extends beyond the boundaries of a single discipline. This major offers, within certain parameters, a wide choice of courses, and an opportunity to design a program of study geared toward the student's individual career needs and interests. It should be understood, however, that each program of study has to be designed in such a way that quality and coherence are assured. For these reasons, the program of study is to be planned by the student in consultation with the advisor. Approval of the contract is provided by the advisor.

Specific requirements for a B.A. degree in Interdisciplinary Social Sciences (ISS) include:

1. **Required core courses for the major** are STA 3122, ISS 3010, and ISS 4935. Women's Studies majors take WST 4935 in place of ISS 4935. Communication Sciences & Disorder students take STA 3122 and ISS 3010. The completion of 42 approved hours of course work from the College of Social and Behavioral Sciences (CSBS), with a minimum of 30 hours at the 3000 or above level.

2. The student chooses between two cognate areas (provided below) and complete twelve hours in each, or the student can select one of the more structured curricula available: ISS with an emphasis in (a) Speech and Hearing Science, (b) Interpreter Training for the Deaf, (c) American Sign Language, or (d) Urban Studies.

3. It is suggested that the student work out a program of study during the junior year, particularly before too many courses are completed in CSBS. No student should assume, under any circumstances, that courses completed in CSBS will automatically count toward the ISS degree.

4. Students must maintain a minimum grade point average of 2.0 in ISS to graduate.

5. For those highly motivated students, with a minimum grade point average of 3.2, an individualized curriculum can be developed with the approval of the advisor. Under such circumstances core courses and restricted electives may be waived. This course of study will be directed toward the special educational interests of these students. A thesis will be required of students taking this option.

**Cognate Areas** - you must select two areas, and take 12 hours in each. Cognates must be selected from the areas of study listed below:
- AFA, ANT, CCJ, ECN, GEY, GPy, HTY, HUS, INT, LAS, PAD, POL, PSY, SOC, SOW, and WST.

**Interdisciplinary Core Courses**

Two of these courses, one an introductory course and the other a senior seminar, are taught from an interdisciplinary social science perspective. These courses are designed to introduce students to the study of human groups, and to bring into some coherency the various concepts, theories and methods studied in the social sciences. Social Science Statistics is also required for majors in Interdisciplinary Social Sciences.
The Off-Campus Term Program, described in more detail elsewhere in this catalog, is a University-wide, interdisciplinary program which urges students to spend part of their time in college in pursuits that are self-designed and implemented in an environment entirely off campus and out of the classroom. OCT provides for an "education in life" for full academic credit as an alternative to the traditional methods of learning.

WOMEN'S STUDIES (WST)
Requirements for the B.A. Degree
The major in Women's Studies provides a well-rounded Liberal Arts education based on the best and most current scholarship on women in many disciplines. Its subject is not only the evolution of historical attitudes, ideologies, and practices concerning women but also an analysis of the current status of different classes, races and groups of women.

Women's Studies offers excellent undergraduate preparation as well for (1) those who wish to apply to law school or to graduate study in a variety of fields, e.g., Urban or Medical Anthropology, Counseling Education, Criminal Justice, Gerontology, History, Rehabilitation Counseling, Social Work, Women's Studies; (2) those who want to focus on women in specific disciplines or professions; and (3) those whose training would benefit from a close scrutiny of the major issues facing women today. Majors must complete 33 hours, distributed as follows:

1. Required Core Courses (18 hours)
   - WST 2010
   - SOP 3742
   - WST 4310
   - AFA 4335
   - WST 4935
   - STA 3122, or equivalent

2. (3 hours)
   Either WST 3275 or ANT 4302

3. (3 hours)
   Either REL 3145 or POS 4693 or WST 4320

4. (9 hours)
   Three electives chosen from the remaining courses listed under Women's Studies, including those not taken under 2 and 3 above.
   Those electing to major in Women's Studies should consult the Program Coordinator for timely scheduling of classes.

Minor in Women's Studies
A student wishing to minor in Women's Studies will be required to take five courses:

- WST 2010
- Two Women's Studies courses at the 3000 level.
- Two Women's Studies courses at the 4000 level, no more than three credits of which may be satisfied by WST 4900 (Directed Readings) or 4910 (Directed Research).

Students minorin in Women's Studies must be certified by the Program Coordinator.

INTERNATIONAL STUDIES (INT)
At the time that the 1990/91 catalog was being prepared, the International Studies Program was in the process of being merged into a single administrative unit, whose name was yet to be determined. The academic curricula described below have not been affected by the merger.

Requirements for the B.A. Degree:
The major in International Studies enables students to undertake programs of study which emphasize (a) preparation for careers in international activities, or (b) the study of particular international themes or topics, or (c) the study of particular regions or cultures. The program of study is developed by each student in consultation with the International Studies Adviser so as to best serve the education and career goals of the individual.

The major consists of a minimum of 37 semester hours. At least 21 of these hours (seven courses) must be from the International Studies curricula. Students majoring in International Studies are encouraged, but not required, to engage in study abroad programs, a large number of which have been approved by the USF International Affairs Center. Credits earned in such programs apply toward graduation and many also apply to the INT major.

Required Supporting Courses:
Students must pass a 2000 level foreign language course (that is, at least one semester of foreign language study beyond the first year introductory courses), or complete one year of study of a non-Western language. Students who are bilingual or who are already conversationally fluent or who can translate with facility from a foreign language text are exempt from the above course requirement, but the INT faculty may require demonstration of proficiency.

Students will be provided with academic advice and counsel about other courses offered throughout the university which may support and complement their major program. INT majors should plan their programs in conjunction with the adviser who is empowered to make appropriate substitutions when educationally justified.

Minor in International Studies
The minor in International Studies is basically a name given to a set of International Studies courses taken by a student that approximates one half of the upper level credits required for a major. The minor consists of 18 credit hours made up of six courses as follows:

- ISS 2221 (3)
- ISS 3260 (3)
- ISS 4250 (3)
- ISS 4938 (3)
- INR 3036 (3)
- One topical and one area studies course chosen from the INT upper division elective courses

The additional 16 hours may be selected from course offerings of other departments, which are approved by the major adviser as having adequate international or cross-cultural content, or the student may take upper level electives from the International Studies curriculum.

With the approval of the major adviser, credits earned in ISS 4900 (1-3) and ISS 4910 (1-3) may be used to augment or substitute for the foregoing requirements. Students must pass a language requirement beyond the first year level.

With the approval of the major adviser, credits earned in ISS 4900 (1-3) and ISS 4910 (1-3) may be used to augment or substitute for the foregoing requirements. Students must pass a language requirement beyond the first year level.

POLITICAL SCIENCE (POL)
At the time that the 1990/91 catalog was being prepared, the Department of Political Science was in the process of being merged into a single administrative unit, whose name was yet to be determined. The academic curricula described below have not been affected by the merger.

Requirements for the B.A. Degree:
The undergraduate program leading to the B.A. degree in political science offers a general purpose degree, and a number of more specialized alternatives. These include the pre-professional plan in political science. The program is designed for students interested in and seeking to understand political problems and issues, and the nature of the political process, as well as the philosophical and legal basis of political structures and processes at local, state, national, and international levels. Satisfying the degree requirements prepares students for positions in the public and private sectors, for law school, for graduate work in political science, international relations, public administration, and related disciplines, for positions in education, and for applied political activity.

Students who earn a B.A. degree in political science should be able to relate knowledge from their major field to other allied disciplines as well as being well-grounded in political science. In fact, it is impossible to understand fully and to explain political events and behavior without some knowledge of history, economics, anthropology, and other related fields. To aid and encourage political science majors in this endeavor, students must take a minimum of 18 hours in courses from among history, economics, anthropology, geography, sociology, and political science.
philosophy, or other approved Social Sciences. Six hours should be in
history, three in economics, and six from the remaining fields. Six of the
eighteen hours must be taken at or above the 3000 level.

A minimum of 36 credit hours is required to satisfy the requirements
of the major. Students must take the 12 credit hours of required course­
work in political science. No more than six credit hours can be taken
from POS 4905, POS 4910, and POS 4941. (A GPA of 3.0 is required to
enroll in these courses; special exception may be granted by the Chair
for students with a GPA between 2.70 and 2.99).

Students transferring credit hours toward a major in political science
must complete a minimum of 21 credit hours within the Department,
regardless of the number of credits transferred, in order to satisfy the
requirements of the major.

The undergraduate curriculum in political science is composed of the
following:

Required Core Courses (12 cr. hrs.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>POT 3003</td>
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<tr>
<td>POS 4905</td>
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<tr>
<td>POS 4910</td>
<td>3</td>
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<tr>
<td>POS 4924</td>
<td>3</td>
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</tbody>
</table>

Students should complete POT 3003 and POS 4910 by the end of
the first semester of their junior year; students transferring with 45 credit
hours or more must complete these courses within their first two semes­
ters in residence at USF.

Electives from the seven fields (24 cr. hrs.) with at least one course
from Field I, one course from Field II or III, and one course from any
of Fields IV, V, VI, or VII. no course from a given field or field grouping can
be taken until the core course has been completed.

Field I  Political Theory

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
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<tr>
<td>POS 5824</td>
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Field II  Comparative Government and Politics

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<td>CPO 4034</td>
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<tr>
<td>CPO 4037</td>
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Field III  International Relations

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<tr>
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<td>INR 3102</td>
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<td>INR 4403</td>
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Field IV  American National and State Governments

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<td>POS 3823</td>
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Field V  Urban Government and Politics

<table>
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<td>POS 3142</td>
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Field VI  Public Policy

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INR 3102</td>
<td>3</td>
</tr>
<tr>
<td>PUP 4553</td>
<td>3</td>
</tr>
</tbody>
</table>

Field VII  Law and Politics

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INR 4403</td>
<td>3</td>
</tr>
<tr>
<td>POS 4624</td>
<td>3</td>
</tr>
</tbody>
</table>

The following courses are not included within any of the seven fields,
but may still be used as electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PAD 3003</td>
<td>3</td>
</tr>
<tr>
<td>POS 4941</td>
<td>3</td>
</tr>
</tbody>
</table>

Requirements for a Minor in Political Science

A minor in political science consists of a minimum of 18 credit hours,
made up of two courses (6 credit hours) from among CPO 3002 (or INR
3002), POS 2041, and POS 3003. An additional 12 credit hours in
regularly scheduled political science courses are required.

Students transferring credit hours toward a minor in political science
must complete 12 credit hours within the Department, regardless of the
number of credit hours transferred, in order to be certified for a minor.

Field Work

The Department of Political Science has a field work program which
provides students with part-time internships with state and local govern­
ment and with political parties at the state and local level. Academic
credit is available for such internships. For further information, contact
the Department of Political Science.

Honors in Political Science

Honors in Political Science is designed for the outstanding undergradu­
ate who seeks an intensive program plus academic recognition during
the senior year. Admission to the honors sequence, which is available
to all undergraduate majors, will be controlled by grade point average,
personal interviews and close scrutiny of the student's program and
record. Students admitted will write an honors thesis, POS 4970 (3).

Pre-Professional Plan in Political Science

This plan is designed for students seeking an intensive undergraduate
concentration in political science. Typically, students electing this plan
will be oriented towards graduate work in political science or other
social sciences. A minimum of 36 credit hours is required.

Students must take six credit hours of required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POS 2041</td>
<td>3</td>
</tr>
<tr>
<td>POS 3713</td>
<td>3</td>
</tr>
</tbody>
</table>

Ten additional courses in political science (30 cr. hrs.) must be taken,
of which at least seven must be above the 3000 level. Concent­
tration within fields will be encouraged.

Requirements for the Pre-Law Plan in Political Science

The Department of Political Science offers a pre-law plan designed for
the undergraduate considering a career related to law; Field VII of the
undergraduate curriculum (Law and Politics). The courses making up
the field are of particular interest to law-oriented students, but may be
taken by others as well. The Department seeks to guide majors to those
courses which develop skills and provide information needed for good
performance in the study of law. The Department also seeks to give
students the skills and information needed for entry into a number of
law-related positions in business and government. An integral part of
this plan is a high degree of student access to the Department’s pre-law
adviser.

Prior to admission to law school, a student must take the Law
School Admission Test (LSAT). This test is given by the Educational
Testing Service of Princeton, New Jersey.

The Law School Admission Test is given simultaneously several
times each year at the University of South Florida and numerous other
testing centers throughout the state. Students should plan to take the
test at least one year prior to planned enrollment in law school.
Additional information is available from the Department of Political
Science, University of South Florida.

(Prelaw is not a prescribed program of study. No specific college
major is required for admission to law school. Those students intending
to pursue the study of law must obtain a Bachelor of Arts degree in an
area of academic choice. It is generally agreed that knowledge and
understanding of the political, economic, and social context within
which legal problems arise facilitate a career in law.)

International Affairs Focus in Political Science

The Department of Political Science offers a number of courses that
prepare students for graduate study in International Relations and
career opportunities in private or public transnational organizations.

Basic courses in the area include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INR 3002</td>
<td></td>
</tr>
<tr>
<td>CPO 3002</td>
<td></td>
</tr>
<tr>
<td>INR 3102</td>
<td></td>
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</tbody>
</table>

In addition, the Department offers the following upper-level
courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CPO 4034</td>
<td></td>
</tr>
<tr>
<td>CPO 4930</td>
<td></td>
</tr>
<tr>
<td>INR 4334</td>
<td></td>
</tr>
<tr>
<td>INR 4503</td>
<td></td>
</tr>
<tr>
<td>POSS 5934</td>
<td></td>
</tr>
</tbody>
</table>

Students desiring careers in international affairs or international
administration are encouraged to supplement these courses with
courses offered in the Departments of International Studies, Management, Economics, Business Administration, Foreign Languages, and Public Administration.

PSYCHOLOGY (PSY)

Psychology involves the scientific study of behavior and mental processes. Because of this focus, psychology is relevant to many other areas of study both inside and outside of the social and behavioral sciences. The undergraduate program in Psychology offers the student a well-rounded liberal arts education. In addition, the program provides excellent training for qualified students who wish to pursue graduate work in such disciplines as Clinical, Experimental or Industrial Psychology, Education, Gerontology, Counseling, Management, Medicine, and other human service programs. The undergraduate major emphasizes the breadth of psychology while allowing the student some electives to pursue in depth a particular aspect of the field. The graduate faculty of the Psychology Department are divided into three broad program areas: Clinical, Experimental, and Industrial/Organizational. Each of these program areas offers Ph.D. level training as well as introductory instruction at the undergraduate level.

Requirements for the B.A. Degree

Majors must complete at least 34 semester hours in the field. A minimum grade of ‘C’ or better must be attained in each course in the major. All majors must complete:

1. 2000/3000 Level Requirement (6 semester hours)
   Successful completion of: PSY 3044 (3 semester hours) and one of the following:
   - INP 3101
   - PSY 3022
   - SOP 3742
   - PSY 2012

2. Methods Course Requirement (7 semester hours)
   Successful completion of: PSY 3213 and one of the following:
   - CLP 4433
   - PSY 4205
   or another methods course approved by the undergraduate advisor in Psychology.

3. 4000 Level Requirement (21 semester hours)
   Successful completion of 7 additional courses numbered at the 4000 level selected as follows: At least two courses from each of the two groups below:
   - **Group I**
     - EXP 4204C
     - EXP 4204
     - EXP 4523C
   - **Group II**
     - CLP 4143
     - INP 4004
     - SOP 4004
     - DEP 4005
     - and 3 additional courses numbered at the 4000 level.

   **Note:** No more than a total of 3 hours of the following course may count toward the major:
   - PSY 4913 Directed Research
   - PSY 4205 (3) is recommended for students planning graduate training.

   Functional mathematics and biological science are recommended. Otherwise, students majoring in psychology are encouraged to complete a varied undergraduate program.

   A prerequisite for all 4000 level courses is a grade of ‘C’ or better in both PSY 3044 and PSY 3213. For students minoring in Psychology or those majoring in Interdisciplinary Social Sciences, a grade of ‘C’ or better in any statistics course will substitute for the PSY 3213 requirement.

Requirements for the Minor in Psychology

A minor in Psychology consists of a minimum of 15 credit hours, comprising PSY 2012, PSY 3044, and any three 4000 level psychology courses except PSY 4913. A GPA of 2.0 or better in the minor is required for certification. The purpose of the minor is to help students majoring in other disciplines to obtain an appropriate psychology background that will complement their work in their major. See the Psychology Department Undergraduate Advisor for suggested minor programs for students majoring in various fields.

Psychology Honors Program

The purpose of the Honors Program is to provide a select group of undergraduate Psychology majors an opportunity to undertake an intensive individualized research experience. The culmination of the Honors Program is the completion and defense of an honors thesis. Application for the program will take place during the second semester of the student’s junior year, or prior to completion of 90 semester credits. Admission to the program is competitive and based on the student’s overall academic record, performance in psychology courses and a letter of recommendation from a member of the Psychology Department faculty. Successful completion of the program requires a GPA of 3.5 in major coursework, an overall GPA of 3.0 at USF and completion of 43 hours in Psychology including PSY 4913 (3), PSY 4932 (4), and PSY 4970 (8). See the Psychology Department Undergraduate Advisor for details of the program and application form.

PUBLIC ADMINISTRATION (PAD)

At the time that the 1990/91 catalog was being prepared, the Public Administration Program was in the process of being merged into a single administrative unit, whose name was yet to be determined. The academic curricula described below have not been affected by the merger.

The Public Administration Program offers courses which serve as electives for undergraduate students. Completion of these courses will benefit those students preparing for a career in local, state, or federal agencies of government, non-profit organizations, and special service districts and/or graduate work in public administration and related fields. The courses listed below may be taken for undergraduate credit. Please note that the 5000-level courses listed are available to seniors and graduate students only.

- PAD 3003 Introduction to Public Administration
- PAD 4202 Public Financial Administration
- PAD 5035 Issues in Public Administration and Public Policy
- PAD 5333 Concepts and Issues in Public Planning
- PAD 5805 Administrative Law
- PAD 5812 Administrative Regulation
- PAD 5700 Research Methods in Public Administration
- PAD 5907 Administrative Urban Affairs
- PAD 5836 Comparative Public Administration

For further information, please contact the Public Administration Program.

REHABILITATION COUNSELING (REF)

The mission of Rehabilitation Counseling is to help physically, mentally, emotionally, and chemically disabled individuals return to full, rewarding, and productive lives. Rehabilitation Counselors work in a wide variety of settings, but are most commonly employed in public and private rehabilitation programs and facilities, mental health treatment settings, and substance abuse treatment settings. Some establish their own private rehabilitation counseling practices.

Rehabilitation Counseling has roots in both the national rehabilitation movement and professional counseling movement. Training emphasizes psychological, social, medical, and vocational aspects of disability; and also the development and refinement of personal adjustment counseling skills. Graduates with an M.A. degree from the USF Department of Rehabilitation Counseling are prepared for careers as both rehabilitation specialists and mental health counselors. Special elective concentrations in substance abuse and minority rehabilitation are also offered. Other study concentrations can be arranged on an individual basis.

The Department of Rehabilitation Counseling offers only the M.A. degree. However, a five-year master’s program is available to undergraduates where an M.A. degree in Rehabilitation Counseling and a bachelor’s degree in another major (if desired) can be earned in a total program of 150 semester hours. Students admitted through the
five-year program (REF) must have completed 90 semester hours of work and have satisfied General Distribution, CLAST, and Rule 6A-10.30 (Gordon Rule) requirements. Minimum admission requirements include a total Verbal-Quantitative score of at least 1000 on the GRE or a "B" average in all work beyond 60 semester hours. The GRE must be taken by all applicants whether or not they have a 3.0 grade-point average. A detailed description of the M.A. program in Rehabilitation Counseling may be found in the Graduate Catalog.

Undergraduates interested in the five-year program (REF) ideally should contact the department during their sophomore year.

The graduate program in Rehabilitation Counseling is fully accredited by the Council on Rehabilitation Education (CORE), the national accrediting body for rehabilitation counselor training programs. Upon completion of the program, graduates are eligible to sit for the national certification examination of the Commission on Rehabilitation Counselor Certification. After passing this examination, the graduate is registered with the Commission as a Certified Rehabilitation Counselor (CRC). With some additional course work and three years experience, graduates are also eligible to take the examination for state licensure as Mental Health counselors.

Social Work (SOK)
Undergraduate Study
The University of South Florida offers a program leading to a Bachelor of Social Work (B.S.W.) degree in the Department of Social Work, College of Social and Behavioral Sciences. This program has been developed in accordance with the guidelines set forth by the Council on Social Work Education, the national accrediting body for social work education programs, and in accordance with the recommendations of the National Association of Social Workers. The B.S.W. program is fully accredited by the Council on Social Work Education. The primary objective of the B.S.W. program is the preparation of the graduate for beginning level professional practice as a social work generalist. The secondary objectives of the B.S.W. program are:

1. to provide for the social work human resources needs of the University service district (the central Florida west coast area), the State of Florida, and the Southeast Region;
2. to prepare graduates for additional professional training at the graduate level in social work or in related human service professions;
3. to provide an exposure to social work as a profession and to contemporary issues in the social welfare field to non-social work majors and others in the community.

In preparing the B.S.W. graduate for beginning professional practice, the curriculum provides the student with an opportunity to develop a knowledge base and skill base as a "generalist" practitioner. The student will develop an understanding of various interventive methods, and skill in their application to a variety of client systems. For example, interventive methods may take the form of individual and group counseling, resource development, consultation, teaching, advocacy, etc. Client systems may be individuals, families, groups, community groups, organizations, or social welfare organizations. The student will develop an understanding of the dynamics of human behavior in individual, group and organizational contexts and the influence of the sociocultural environment upon those behaviors. The student will learn about the development of social welfare systems and institutions and the social, economic, and political processes affecting policy development and program implementation. The student will develop an understanding of the utilization of basic social research skills particularly related to the processes of problem-solving, planning, and evaluation.

The student will also become aware of the value base of the profession and engage in a self-examination process as it relates to the development and reflection of ethical and effective professional practice. The B.S.W. program, as any professional program, places great emphasis on the development of a professionally responsible graduate in terms of one's obligations to the client system served, the profession itself, the organization in which one works, and to the general public which ultimately provides any profession with legitimacy.

Enrollment in the B.S.W. program is limited. Unlike many academic programs where the student can declare a major, the B.S.W. program is a limited access program. Students may apply for admission to the program after having satisfied the admission criteria described below.

However, the completion of the prerequisites does not guarantee the student's admission to the program. Limited state funding places constraints on the size of the social work faculty and in order to maintain a high quality of instruction it is necessary to achieve an appropriate faculty-student ratio. This means that it may be necessary to deny admission to the B.S.W. program solely on the basis of no available space. Any student filling intent to seek admission or actually applying for admission to the program should be aware of this possibility.

Additionally, any student who does not maintain a GPA of at least 2.75 in social work courses while enrolled in the B.S.W. program or who clearly does not exhibit responsible professional behavior, may be subject to dismissal from the program. A social work major receiving a grade of less than "C" in a core course will be required to repeat the course.

Admission to the B.S.W. program is a two-stage process. Any student that holds a minimum of Sophomore standing may declare a pre-social work major. This is done by filling a declaration of major form with the College of Social and Behavioral Science, Records and Advising Office and a similar form with the Department of Social Work. All pre-majors will be assigned to an advisor within the Department who will assist the student in selecting pre-core courses (see listing of pre-core courses). Many students will have already taken most of the pre-core courses as part of general distribution at USF or in their course of study at a community college. After completing the pre-core courses a student will be ready to apply for admission to the B.S.W. program as a full major. It is necessary to be admitted as a major before taking core social work courses.

Admission requirements for the social work major are as follows:

1. A student must have completed a minimum of one semester as a pre-social work major;
2. A student must have completed required pre-core courses (see listing);
3. A student must complete an application for admission and file it with the Department of Social Work at the beginning of the semester in which admission is sought;
4. A student may be asked to complete an admission interview with a favorable action from the Admissions Committee.

Any of the foregoing admission criteria may be waived by the Department where unusual circumstances and compelling merit are clearly demonstrated. Requests for waivers must be submitted in writing to the Student Affairs Committee no later than the middle of the semester.

A student must achieve a GPA of 2.75 in Social Work courses to enroll in field placement and subsequently graduate with the B.S.W. degree.

Pre-Core Courses

1. A student must complete one course in each of the following cognate areas.

   Human Biology:
   Food and Drugs
   Sex, Reproduction and Population
   Topics in Human Biology

   Political Science:
   American National Government
   State and Local Government
   Florida Politics and Government

   Psychology:
   Introduction to Contemporary Psychology
   Contemporary Problems in Psychology
   General Psychology

   Sociology:
   Introduction to Sociology
   Contemporary Social Problems
   Social Psychology
2. A student must complete one of the following cross-cultural courses.
   - African and Afro-American Studies
     - Introduction to Afro-American Studies
     - Black Americans in the American Economic Process
     - Blacks in American Political Process
   - Anthropology:
     - Introduction to Anthropology
     - Anthropological Perspective
     - Cultural Anthropology
   - Sociology:
     - Racial and Ethnic Relations
     - Women’s Studies:
     - Introduction to Women’s Studies
     - Contemporary Women in the United States
     - Psychology of Women
     - Sex Roles in Cross-Cultural Perspective

3. A student must complete one of the following behavior courses.
   - Human Services:
     - The Life Cycle
   - Sociology:
     - Introduction to Social Work
     - Social Welfare Policy & Service Course
     - Social Research Course
     - Social Work Practice Courses
     - Directed Field Experience
     - Additional Requirements

4. A student must complete SOW 3302, Introduction to Social Work, with a minimum grade of "B," and SOW 3203, The American Social Welfare System, with a minimum grade of "B."

Requirements for the B.S.W. Degree (Core Courses)

1. Human Behavior and Social Environment Courses
   - SOW 3101 (3)
   - SOW 3102 (3)
2. Social Welfare Policy & Service Course
   - SOW 4233 (4)
3. Social Research Course
   - SOW 3403 (4)
4. Social Work Practice Courses
   - SOW 4341 (5)
   - SOW 4343 (5)
5. Directed Field Experience
   - SOW 4510 (10)
6. Additional Requirements
   - SOW 4361 (2)

Summary:
- Core Courses
- Field Experience

26 hours
10 hours
36 hours

SOCIOLGY (SOC)

The primary purpose of the major in Sociology is to contribute directly to the student’s capacity for critical analysis and understanding of social phenomena and the dynamics of social structure and process. At the same time, it will prepare students for a wide range of careers such as teaching, law enforcement, personnel work, sales, research, urban planning, etc. It also provides training for advanced graduate work in sociology and social psychology and other applied areas such as gerontology, criminal justice, social work, etc.

Requirements for the Major (B.A. Degree)

The major consists of a minimum of 36 credit hours. The following courses may not be counted in the 36 hour minimum for the major but may be elected as additional courses: SYG 3010, SYG 2412, SYA 3504. No more than 3 credit hours of Individual Research (SYA 4910) may be counted as major elective credit. No course for which the student receives a grade lower than "C" will be counted toward the major. A model program of recommended sequences may be obtained from the Department of Sociology.

Transfer students should be aware that by University regulations, the equivalent of one academic year must be taken in on-campus courses. In Sociology, we require that of the 36 credits needed to make up the major, no more than 9 credits earned elsewhere, including exchange program credits, can count towards the major. The purpose of this rule is to insure that our certification that an individual who has majored in sociology genuinely reflects our understanding of sociology as a major and that there is no fundamental difference between the transfer student and those whose work was entirely or mostly completed at the University of South Florida. Students are encouraged to complete the core courses as soon as possible after declaring the major. The core courses for the major are:

   - STA 3122 (3)
   - SYG 2000 (3)
   - SYG 2010 (3)
   - SYA 3000 (3)
   - SYA 3300 (3)
   - SYA 3500 (3)
   - either SYG 3530 (3) or SYA 3500 (3)

For students electing a major after having successfully taken 12 upper level credits without having had a formal Introductory course, SYG 3500 (Social Organization) may be substituted for SYG 2000 as a requirement. Students making this choice must take SYG 3530 to meet the additional requirement stated above.

Given the nature of changes in society, students are encouraged to become computer literate in ways that are appropriate to their career goals.

Requirements for a Minor:

A minor consists of a total of 15 credits; SYG 2000, Introduction to Sociology (or equivalent) plus 12 semester hour credits at the 3000 level or higher. Though we do not require an adviser, feeling students to be capable of making reasonable choices, we recommend the use of an adviser to find the best set of courses fitting one’s personal interests.
SCHOOL OF EXTENDED STUDIES & LEARNING TECHNOLOGIES

Beginning in the Fall of 1990, the University of South Florida will establish a College of Arts and Sciences that will consist of the combined colleges of Arts and Letters, Natural Sciences, and Social and Behavioral Sciences. In addition, the Bachelor of Independent Studies program will be moved from the School of Extended Studies and Learning Technologies to the new College.

State University System, External Degree Program

Bachelor of Independent Studies (BIS)

The Bachelor of Independent Studies (BIS) Program is available through participating state universities in Florida. The universities currently involved are the Florida State University, the University of Florida, the University of North Florida, and the University of South Florida. The administrative office for the statewide program is located at USF in Tampa.

Founded in 1968, the external degree program is for adults who find it difficult to attend regular university classes because of career or family commitments. The BIS student proceeds at his/her own pace and, for the most part, in his/her own setting. The exception is the summer seminars which require periodic, short-term campus residence.

Curriculum

The curriculum of interdisciplinary studies consists of four study areas: the Humanities, Natural Sciences, Social Sciences and Inter-area Studies. The first three areas of study are completed through guided independent study and a resident seminar. While the seminar is of short duration, the tutorial/independent study for each area requires a longer commitment of time. The student may begin in any of the first three study areas and is encouraged to start in his/her area of strength.

Tutorials

The tutorial or guided independent study is predominantly print intensive, with core and suggested readings drawn from the BIS Guide to Independent Studies. In the Humanities tutorial, for example, the student reads across the disciplines of the Humanities Study Area which include Language, Literature, Philosophy, Art, Drama, and Architecture. Selected works are reviewed within the framework of historical periods. Tutorial objectives include knowledge of the basic principles of each of the genres and periods, the ability to visualize relationships between the disciplines, grasp of the nomenclature of the disciplines, and the capacity to apply basic concepts to current issues. The student is responsible for systematic interaction with the faculty mentor who directs the reading process and evaluates the student's progress.

In the Natural Sciences tutorial, the BIS learner studies about Science—Science for the non-scientist. Emphasis is placed on the interrelationships of the disciplines of Science. Topics illustrative of this interdisciplinary approach to Sciences include Mathematics, Physics, Chemistry, Biology, Astronomy, Geology, Ecology, History, and Philosophy of Science, and the impact of Science on technology. As is the case with other tutorials the learning objectives involve concepts, nomenclature, cross disciplinary insights, and application of concepts/methods to current issues.

In the Social Sciences tutorial, the student reads selected core and supplementary readings and completes written projects in each of the basic disciplines of the Social Science Study Area. These include Anthropology, Economics, Geography, History, Political Science, Psychology, and Sociology. Tutorial objectives include knowledge of the basic concepts and principles of each discipline, familiarity with major social science research techniques, understanding of the relationships among the different disciplines, and the ability to apply disciplinary or interdisciplinary concepts or models to current issues.

Following the tutorial, the student completes a comprehensive examination in order to demonstrate that a satisfactory level of proficiency has been attained in the independent study component of a particular area. The exam may be taken on or off campus.

Seminars

Students are invited to attend seminars on the USF campus. This process is completed for each of the first three study areas (Humanities, Natural Sciences, and Social Sciences). Each seminar represents a period of intensive residential learning under the direction of a team of faculty members. Seminar faculty teams identify the subject matter and activities of each seminar. Humanities seminars, for example, are often theme oriented but the focus is on interdisciplinary concerns. A number of historical periods may be approached through discussion of selected genres of the age such as art, music, literature, and architecture. In a Natural Sciences seminar, the focus is on an interdisciplinary approach to learning about Science. Social Sciences seminar faculty focus on the knowledge gained in the tutorial with an emphasis on synthesis, extension, and application of this learning to selected topics such as energy, patterns of human behavior, and human rights.

Seminars activities also vary with the study area. A visit to a museum or art gallery goes with a Humanities Seminar. In Science, laboratory experiences and field trips are utilized to show students the ways of Science and to allow them to experience the excitement of discovery. Many of the activities described in a Social Sciences seminar syllabus are used in other seminars as well, i.e., lectures by faculty team members or guest lecturers, presentations by group members, group discussion, library research, learning journals, and a research paper.

Students in all seminars may be asked to read materials related to the seminar theme prior to the seminar and to complete written assignments after the completion of the two-week seminar period. Seminars meet for two consecutive six-day weeks and activities take up a full day. Students who have completed the comprehensive exam for the study area tutorial are automatically invited to a seminar. Others become eligible with the consent of the mentor.

Undergraduate Thesis

The fourth study area or Inter-area Studies calls for a synthesis of the first three study areas via the preparation and defense of an undergraduate thesis. The student begins the Area with Inter-area reading leading to the completion of an undergraduate thesis prospectus under the direction of a primary adviser. Following approval of the prospectus by a committee composed of three faculty, the student writes the study under the direction of the committee chairperson. The final step is to successfully complete the thesis orally either on campus or via teleconference at the discretion of the Committee.

Admission Procedures

Applicants to the BIS Program must qualify for admission to the University of South Florida and for admission to the External Degree Program. The USF Director of Admissions rules on the admission of an applicant to the University. The BIS Committee rules on admission of an applicant to the BIS Program. BIS applicants typically welcome the challenge of Liberal Studies and the rigor of independent study. See Financial Information Section for breakdown of credit hour fees for the BIS Program.

Mechanisms for Recognizing Prior Learning

Program policy allows for recognition of prior learning. Applicants, for example, who demonstrate sufficient competence may waive up to a maximum of two areas of guided independent study. Applications for waivers are processed after pre-enrollment procedures have been completed.

Applicants who have sufficient competence in some, but not all, of the disciplines in a study area may receive advanced placement or an abbreviated reading program, based on the individual's background and needs. This assessment is accomplished as the student relates with the mentor in the context of the tutorial. Individuals with an A.A. degree, and Registered Dental Hygienists, Registered Nuclear Medicine Technologists, Registered Nurses, Registered Radiologic Technologists, and Registered Respiratory Therapists with an A.S. degree from a state-approved program qualify for a "two-plus-two interface" with BIS requirements.
In other words, those with an appropriate associate's degree complete two substantive study areas involving two tutorials and two seminars. The two study areas (Social Sciences & Natural Sciences or Humanities & Social Sciences or Natural Sciences & Humanities) are stipulated by the BIS Committee in keeping with the applicant's background and career plans. The two designated study areas are regarded as the curriculum contract component of the "two-plus-two interface." Anyone choosing the "two-plus-two" option is ineligible to apply for waiver.

The Program is academically responsible to the Dean of the College of Arts and Sciences. The BIS Faculty Committee, in its role of overseeing the statewide and university-wide program, is advisory to the Provost for Academic Affairs.

For further information, contact the State University System, External Degree Program, Bachelor of Independent Studies (BIS) located at HMS 443, University of South Florida, Tampa, Florida 33620-8400.
COURSE DESCRIPTIONS

Courses offered for credit by the University of South Florida are listed on the following pages in alphabetical order by college and subject area. The first line of each description includes the State Common Course prefix and number (see below), title of the course, and number of credits. Credits separated by a colon indicate concurrent lecture and laboratory courses taught as a unit: 

**PHY 3040, 3040L GENERAL PHYSICS AND LABORATORY** (3:1) 
Credits separated by commas indicate unified courses offered in different semesters: 

**AMH 2010, 2020 AMERICAN HISTORY I, II** (4,4) 
Credits separated by a hyphen indicate variable credit: 

**HUM 4005 DIRECTED RESEARCH** (1-5) 
The abbreviation "var." also indicates variable credit: 

**MAT 7912 DIRECTED RESEARCH** (var.) 
The following abbreviations are utilized in various course descriptions: 

| CR | Corequisite 
|---|---
| CI | With the consent of the instructor 
| CC | With the consent of the chairperson of the department or program 
| CR | Corequisite 
| Lec. | Lecture 
| Lab. | Laboratory 
| Dem. | Demonstration 
| Pro. | Problem 
| Dis. | Discussion 
| 6A | Courses to satisfy Rule 6A-10.30 (Gordon Rule) 

The University reserves the right to substitute, not offer, or add courses that are listed in this catalog.

### Alphabetical Listing of Departments and Programs

Course descriptions are listed by college under the following department and program headings:

<table>
<thead>
<tr>
<th>Department/Program</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>Business Administration</td>
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### College of Arts and Letters

| American Studies          | AMS, CLT                |
| Classics                  |                          |
| Greek                     | GRE, GRK, GRW           |
| Latin                     | LAT, LNW                |
| Communication             | COM, LIN, ORI, SED, SPC,|
| English                   | AML, CRW, ENC, ENG,    |
| Humanities                | ENL, LAE, LIN, LIT, REA |
| General Foreign Languages | HUM                     |

| Arabic                    | FOL                     |
| Chinese                   | ARA                     |
| French                    | CHI                     |
| German                    | FLE, FRE, FRW           |
| Hebrew                    | GER, GEW                |
| Italian                   | HBR                     |
| Japanese                  | ITA, ITW                |
| Polish                    | JPN, POL                |
| Portuguese                | POR, POW                |
| Romance                   | FOW                     |
| Russian                   | RUS, RUT, RUW           |
| Spanish                   | SPN, SPW                |
| Yoruba                    | YOR                     |
| Liberal Studies           | IDS                     |
| Linguistics               | ESL, LIN, PHI, TSL      |
| Mass Communications       | ADV, FIL, JOU, MMC, PGY,|
| Philosophy                | PUR, RTV, VIC           |
| Religious Studies         | PHH, PHI, PHM, PHP      |
| Ancient Studies           | GRE, REL                |
| College of Business Administration | ACG, TAX |
| Accounting                | GEB                     |
| Common Body of Knowledge  | ECO, ECP, ECS, GEB      |
| (Graduate)                | FIN, REE, RMI           |
| Economics                 |                         |
| General Business Administration | BUL, CGS, COC, GEB, MAN |
| Information Systems and Decision Sciences | COC, CGS, GEB, QMB |
| Management                | MAN, QMB                |
| Marketing                 | MAR                     |

| College of Education       | EDA, EDS                |
| Administration/Supervision | ADE, PEP, PET           |
| Adult Education            | ARE, EDG                |
| Art Education              | BTE                     |
| Business and Office Education | CAP, CGS, EDF, EME     |
| Computers in Education     | ARE, ENE, FLE           |
| Content Specializations    | MCE, SCE, SED, SSE      |
| Counselor Education        | EGC, SLS                |
| Curriculum and Instruction | EDE, EDG, EDM, ESE, LAE,|
| Distributive and Marketing Education | THE |
| Physical Education         | DEC                     |
| Elective                   | DAA, PEL, PEM, PEN,     |
| Elementary Education       | PEQ, PET                |
| English Education          | ARE, EDE, EDG, EDS, EEC,|
| Foreign Language Education | HLP, LAE, MAE, MUE,     |
| Education                  | RED, SCE, SSE           |
| Foundations Education      | LAE                     |
| Higher Education           | FLE, EDF, SPS           |
| Humanities Education       | EDH                     |
| Industrial/Technical       | HUM                     |
| Education                  |                         |
| Library, Media, and        | ETA, EVI, EVT           |
| Information Studies        |                         |
| Measurement-Research       |                         |
| Music Education            |                         |
| Physical Education for     |                         |
| Teachers                   |                         |
| Reading Education          |                         |
| Science Education          |                         |
| Social Science Education   |                         |
| Special Education          |                         |
### College of Engineering

Basic and Interdisciplinary Engineering
Chemical and Mechanical Engineering
Civil Engineering and Mechanics

Computer Science and Engineering

Computer Service Courses
Electrical Engineering
Engineering Technology

Industrial and Management Systems

---

### College of Fine Arts

Art
Dance
Music

Music Education
Theatre

---

### College of Medicine

Medicine

Medical Sciences

---

### College of Natural Sciences

Astronomy

Biology

Botany Courses

Microbiology Courses

Zoology Courses

Chemistry

Geology

Marine Science

Mathematics

Medical Technology

Physics

---

### College of Nursing

Nursing

---

### College of Public Health

Public Health

---

### College of Social and Behavioral Sciences

African and Afro-American Studies

Anthropology

Communication Science and Disorders

Criminology

Geography

Gerontology

History

Human Services

International Studies

Off-Campus Term

Political Science

Psychology

Public Administration

Rehabilitation Counseling

Social Sciences, Interdisciplinary

Social Work

Sociology

Women's Studies

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### Cross-Listing Departments/Programs

Alphabetically by Prefix

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**COURSE LEVEL DEFINITION**

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### UNIVERSITY-WIDE COURSES

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<td><strong>AEROSPACE STUDIES</strong></td>
<td><strong>HONORS PROGRAM</strong></td>
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<td>Professor: Col Don Liesch; Assistant Professors: Maj Kenneth L. Reynolds, Capt Debora B. Hubbard, Capt Steven Hammock.</td>
<td>Director: Stuart Silverman (There is no permanent University Honors faculty. Instructors for the Honors courses are recruited from among the University's most outstanding teacher-scholars).</td>
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<td><strong>HONORS PROGRAM</strong></td>
<td><strong>MILITARY SCIENCE</strong></td>
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<td>Director: Stuart Silverman (There is no permanent University Honors faculty. Instructors for the Honors courses are recruited from among the University’s most outstanding teacher-scholars).</td>
<td>Professor: LTC Howard M. Abney, Jr.; Assistant Professors: MAJ J. A. Fraley, Jr., MAJ Richard B. Fryinger, CPT Edward W. Durant, CPT David Hernandez, CPT Michael S. O'Neil, CPT Peter T. Owen.</td>
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<td>Director: Stuart Silverman; Lecturer: D. Keith Lupton.</td>
<td><strong>COOPERATIVE EDUCATION</strong></td>
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<td><strong>COOPERATIVE EDUCATION</strong></td>
<td><strong>AFR 2140 AIR FORCE TODAY ORGANIZATION AND DOCTRINE</strong></td>
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<tr>
<td>COE 1940 COOPERATIVE EDUCATION, 1ST TRAINING PERIOD (0) PR: 30 hours of academic credit, acceptance in Cooperative Education Program. (S/U only.)</td>
<td>Introduction to the Air Force in the contemporary world through a study of its total force structure and mission.</td>
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<tr>
<td>COE 1941 COOPERATIVE EDUCATION, 2ND TRAINING PERIOD (0) PR: COE 1940. (S/U only.)</td>
<td>AFR 1120 THE AIR FORCE TODAY STRUCTURE AND ROLES (1) A study of the strategic offensive and defensive forces, general purpose forces, and aerospace support forces that make up the Air Force of today.</td>
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<tr>
<td>COE 2942 COOPERATIVE EDUCATION, 3RD TRAINING PERIOD (0) PR: COE 1941. (S/U only.)</td>
<td>AFR 2130 U.S. AIR POWER: ASCENSION TO PROMINENCE (1) A study of air power from balloons and dirigibles through the jet age.</td>
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<tr>
<td>COE 2943 COOPERATIVE EDUCATION, 4TH TRAINING PERIOD (0) PR: COE 2942. (S/U only.)</td>
<td>AFR 2150 FIELD TRAINING (0) Field Training is offered during the summer months at selected Air Force bases throughout the United States. Students in the four-year program participate in four weeks of Field Training, usually between their sophomore and junior years. Students applying for entry into the two-year program must successfully complete six weeks of Field Training prior to enrollment in the Professional Officer Course. The major areas of study in the Field Training program include junior officer training, aircraft and aircrew orientation, career orientation, survival training, base functions and Air Force environment, and physical training.</td>
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<td>COE 2944 COOPERATIVE EDUCATION, 5TH TRAINING PERIOD (0) PR: COE 2943. (S/U only.)</td>
<td>AFR 3220 AIR FORCE MANAGEMENT AND LEADERSHIP-I (3) An integrated management course emphasizing the individual as a manager in an Air Force milieu. The individual motivational and behavioral processes, leadership, communication, and group dynamics are covered to provide a foundation for the development of the junior officer's professional skills as an Air Force officer (officership). The basic managerial processes involving decision making, utilization of analytic aids in planning, organizing, and controlling in a changing environment are emphasized as necessary professional concepts.</td>
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<td>COE 2945 COOPERATIVE EDUCATION, 6TH TRAINING PERIOD (0) PR: COE 2944. (S/U only.)</td>
<td>AFR 3231 AIR FORCE MANAGEMENT AND LEADERSHIP-II (3) A continuation of the study of Air Force advancement and leadership. Concentration is on organizational and personal values, management of forces in change, organizational power, politics, and military strategy and tactics are discussed within the context of the military organization. Actual Air Force cases are used to enhance the learning and communication processes.</td>
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<td>COE 4946 COOPERATIVE EDUCATION, 7TH TRAINING PERIOD (0) PR: COE 2945. (S/U only.)</td>
<td>AFR 4201 NATIONAL SECURITY FORCES IN CONTEMPORARY AMERICAN SOCIETY I (3) A study of the Armed Forces as an integral element of society, with an emphasis on American civil-military relations and context in which U.S. defense policy is formulated and implemented. Special themes include: societal attitudes toward the military and the role of the professional military leader-manager in a democratic society. Students will be expected to prepare individual and group presentations for the class, write reports and otherwise participate in group discussions, seminars, and conferences.</td>
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<tr>
<td>COE 4947 COOPERATIVE EDUCATION, 8TH TRAINING PERIOD (0) PR: COE 4946. (S/U only.)</td>
<td><strong>AFR 4211 NATIONAL SECURITY FORCES IN CONTEMPORARY AMERICAN SOCIETY II</strong> (3) A continuation of the study of the Armed Forces in contemporary American society. Concentration is on the requisites for maintaining adequate national security forces; political, economic, and social constraints on 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 military justice and its relationship to civilian law. Students will be expected to prepare individual and group presentations for the class, write reports and otherwise participate in group discussions, seminars, and conferences. Proficiency in communicative skills must be demonstrated.</td>
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<tr>
<td>COE 4948 COOPERATIVE EDUCATION, 9TH TRAINING PERIOD (0) PR: COE 4947. (S/U only.)</td>
<td>AFR 2001 LEADERSHIP LABORATORY (0) Leadership Laboratory is required for each of the Aerospace Studies courses. It meets one hour per week. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop each student's leadership potential. Leadership Laboratory involves a study of Air Force customs and courtesies; drill and ceremonies; career opportunities in the Air Force; and the life and work of an Air Force junior officer. Students develop their leadership potential in a practical laboratory, which typically includes field trips to Air Force installations throughout the U.S.</td>
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<td>COE 4949 COOPERATIVE EDUCATION, 10TH TRAINING EDUICATION (0) PR: COE 4948. (S/U only.)</td>
<td><strong>AEROSPACE STUDIES</strong></td>
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<td><strong>AEROSPACE STUDIES</strong></td>
<td><strong>AFR 1101 THE AIR FORCE TODAY ORGANIZATION AND DOCTRINE</strong></td>
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<tr>
<td>AFR 1101 THE AIR FORCE TODAY ORGANIZATION AND DOCTRINE (1) Introduction to the Air Force in the contemporary world through a study of its total force structure and mission.</td>
<td>Introduction to the Air Force in the contemporary world through a study of its total force structure and mission.</td>
</tr>
<tr>
<td>AFR 1120 THE AIR FORCE TODAY STRUCTURE AND ROLES (1) A study of the strategic offensive and defensive forces, general purpose forces, and aerospace support forces that make up the Air Force of today.</td>
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<td>AFR 2130 U.S. AIR POWER: ASCENSION TO PROMINENCE (1) A study of air power from balloons and dirigibles through the jet age.</td>
<td>A study of air power from balloons and dirigibles through the jet age.</td>
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Bachelor of Independent Studies

State University System

External Degree Program

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HONORS PROGRAM

University Honors Students must take all of the following including 2 semesters of Honors Program Seminar and 2 semesters of either Thesis or Project (but not both).

IDH 2010 ACQUISITION OF KNOWLEDGE

PR: IDH 2010. An appreciation of the problems of how human understanding proceeds through operations such as perception, classification, and inference, among others, as well as the open philosophic questions behind these operations.

IDH 3100 ARTS/HUMANITIES HONORS

PR: IDH 2010. An introduction to western arts and letters from the perspectives of three period’s terms (classicism, romanticism, and modernism), the relationship of ideas to art, the similarities among the arts of a given period, and important differences between periods.

IDH 3350 NATURAL SCIENCES HONORS

PR: IDH 2010. Restricted to University Honors Students. 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


IDH 3600 SEMINAR IN APPLIED ETHICS

PR: IDH 2010. Restricted to University Honors Students. This course explores ethical issues related to selected topics such as Ethics of Technology, Ethics in Business, Bio-Medical Ethics, Personal Ethics Development.

IDH 4000 HONORS PROGRAM SEMINAR

PR: IDH 2010. A course designed to prepare students for independent research. The class will be responsible for determining course content and requirements under the supervision of a faculty mentor.

This course is taken for 2 semesters.

IDH 4900 HONORS PROJECT

PR: Senior Honors Standing. The development of and public presentation of a special project such as an original musical composition, dramatic piece, etc. under the direction of a mentor. Course is taken for 2 semesters.

IDH 4970 HONORS THESIS

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.

MILITARY SCIENCE

Students not attending on an Army Scholarship may take the 1000 and 2000 level courses with no obligation to the Army. Army Scholarships and Service obligation options are discussed in class.

MIS 1000 ORGANIZATION OF THE ARMY AND ROTC

Introduction, purpose, and obligation of the Army and ROTC. Introduction to military customs and traditions; rank structure and the role of an Army officer. An optional two hour weekly Laboratory with emphasis on adventure skills, such as rappelling, physical training and weapons is offered.

MIS 1400 FUNDAMENTALS OF LEADERSHIP DEVELOPMENT

Basic leadership techniques and principles, professional ethics, senior-subordinate relationships, leadership problems, basic counseling and management techniques. An optional two hour weekly laboratory with emphasis on adventure skills, such as rappelling, physical training and weapons is offered.

MIS 2601 MILITARY TRAINING MANAGEMENT AND INSTRUCTIONAL TECHNIQUES

Develops an understanding of the fundamental concepts involved with methods of instruction, training management and curriculum development in the military. Actual student preparation and presentation of instruction will be an integral part of the course. An optional two hour weekly Laboratory with emphasis on adventure skills such as rappelling, physical training, and weapons is offered.

MIS 2610 LEADERSHIP ASSESSMENT

Course will include an introduction to interpersonal skills required for effective leadership and diagnostic leadership assessment exercises. Topics will also include immediate first aid and injury prevention. An optional two hour weekly laboratory with emphasis on adventure skills such as rappelling, physical training and weapons is offered.

MIS 2610L LEADERSHIP LABORATORY

Laboratory consists of a two hour block of instruction per week and directly supports classroom instruction. Instruction is centered around actual hands-on experience which develops the student’s potential. Laboratory includes instruction on drill and ceremonies; customs and courtesies, tactics, weapons and other required subjects. (S/U only).

MIS 3400 INTENSIFIED BASIC SKILLS COURSE

An intensive summer program conducted at Fort Knox, Kentucky for six weeks. Designed as an alternative method to meet the prerequisites of the Advance Course for students who have no basic Military Science courses. (S/U only.)

MIS 3300 SMALL UNIT OPERATIONS

Open to ROTC Contract Cadets only. Provides training required by junior officer to direct and coordinate individuals and small units in the execution of offensive and defensive tactical missions. Also provides exposure to military weapons and communications systems found at this level. Students must attend a two hour Leadership Laboratory weekly.

MIS 3404 LEADERSHIP FUNDAMENTALS - TACTICS AND CAMP PREPARATION

Open to ROTC Contract Cadets only. Improves cadet proficiency in those military subjects necessary to meet minimum standards of technical competence and self-confidence required of a junior officer in the U.S. Army. Prepares cadets for participation at Advanced Camp. Major emphasis during course is placed on physical training and field training exercises. Student must attend a two hour Leadership Laboratory weekly.

MIS 4002 ARMY AS A PROFESSION

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 4421 SEMINAR IN MILITARY LEADERSHIP & MANAGEMENT

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.
AMERICAN STUDIES
Chairperson: J. B. Moore; Professor: J. B. Moore; Associate Professors: R. A. Banes, R. E. Snyder; Assistant Professor: P. J. Brewer; Other Faculty: S. A. Zylstra.

CLASSICS
Chairperson: A. L. Motto; Professor: A. L. Motto; Associate Professor: J. D. Noonan; Assistant Professors: J. S. Campbell, S. R. Mandell; Courtesy Professor: A. Starr; Other Faculty: J. R. Clark, W. M. Murray, J. F. Strange, G. K. Tipps.

COMMUNICATION
Chairperson: A. P. Bochner; Professors: A. P. Bochner, P. J. Newcombe, L. S. Pettigrew, R. J. Schneider; Associate Professors: K. N. Cisnera, B. F. Downs, C. J. Jablonski, N. C. James, A. D. Payne, M. L. Vanderford; Assistant Professor: M. G. Garko; Other Faculty: D. H. Smith.

ENGLISH

HUMANITIES
Chairperson: A. J. Sparks; Professors: C. B. Cooper, S. L. Gaggi, T. B. Hoffman, H. Juergensen, G. S. Kashdin (Emeritus), E. M. MacKay (Emeritus), D. Rutenberg, A. J. Sparks, S. A. Zylstra; Assistant Professor: J. D’Emilio; Courtesy Professor: Laszlo J. Hetenyi.

LANGUAGE

LIBERAL STUDIES
Program Director: J. B. Camp.

LINGUISTICS

MASS COMMUNICATIONS

PHILOSOPHY

RELIGIOUS STUDIES

AMERICAN STUDIES
AMS 2363 ISSUES IN AMERICAN CIVILIZATION (2)
Through lecture and demonstration an examination of such topics as natural environment and the quality of life, sports and American society, popular music, American communities, vigilante tradition, jazz music, role of the family, American success myth, youth in America. Repeatabl up to 6 credit hours.

AMS 3001 AMERICA AT THE TURN OF THE CENTURY - 6A
Integration of major aspects of American life between the 1880s and World War I. Should be taken the first term a student becomes an American Studies major. Elective for non-majors.

AMS 3201 THE COLONIAL PERIOD (4)
An examination of cultural patterns in America as they developed between 1600 and 1780 with an emphasis on the texture of everyday life.

AMS 3210 REGIONS OF AMERICA (4)
The pattern of American culture as revealed through an examination of selected writings and other pertinent materials dealing with selected American regions. Elective for non-majors. Repeatable up to eight credit hours.

AMS 3230 AMERICA DURING THE TWENTIES AND THIRTIES (4)
Selected interdisciplinary materials are used to examine the relationships among regionalism, nationalism and internationalism during the twenties and thirties. Emphasis is placed on the measure of cultural nationalism attained by the United States during this period. Elective for non-majors.

AMS 3302 ARCHITECTURE AND THE AMERICAN ENVIRONMENT (3)
By means of slides, lectures and discussion the course examines 350 years of American architectural history. Architectural styles, aesthetics and the relation between a building and its social environment are stressed.

AMS 3370 SOUTHERN WOMEN: MYTH AND REALITY - 6A (3)
An analysis of the myths surrounding Southern Women, this course will identify these myths, discern their sources and purposes, and contrast them with history. (Also offered under Women’s Studies.)

AMS 3700 RACISM IN AMERICAN SOCIETY (3)
An introduction to the causes and effects of racism in American history, literature, art, the media, and folklore. Related concepts of ethnocentrism, and class conflict will also be studied.

AMS 3930 SELECTED TOPICS IN AMERICAN STUDIES (1-4)
Offerings include The American Success Myth, Cultural Darwinism in America, America Through Foreign Eyes, Material Culture in American Society, and The Female Hero in American Culture.

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

AMS 4930 SELECTED TOPICS IN AMERICAN STUDIES (1-4)
Offerings include American Painting: its social implications, Technology in the Twentieth Century America, American Environmental Problems, Popular Culture in America, American Military Experience, and Labor in America.
**CLASSICS**

**CLA 4103 GREEK CIVILIZATION - 6A**  
Study of Greek Civilization from its beginning to the Roman period, with emphasis on social customs, political institutions, and daily life. (4)

**CLA 4123 ROMAN CIVILIZATION - 6A**  
Study of Ancient Roman Civilization with emphasis on social customs, political institutions, and daily life. (4)

**CLA 4935 SENIOR SEMINAR**  
PR: Senior in the Interdisciplinary Classics and the Ancient World Program. A seminar integrating disciplines involved in the study of the civilizations of the Ancient Near East, Greece and Rome. (3)

**Courses in Translation**

**CLT 3040 CLASSICAL WORD ROOTS IN SCIENCE**  
A course in the Greek and Latin word elements used in science and technology. (3)

**CLT 3101 GREEK LITERATURE IN TRANSLATION -6A**  
Reading and discussion of major works in Greek literature. Special emphasis on the Iliad, the dramatists Aeschylus, Sophocles, Euripides, and Aristophanes. Some attention is given to the social and political background of the works. All readings are in English. (4)

**PR:**

**CLT 3102 ROMAN LITERATURE IN TRANSLATION -6A**  
Reading and discussion of major works in Roman literature. Special emphasis is placed on the Aeneid, comedy and satire. Some attention is given to the political background of the works. All readings are in English. (4)

**CLT 3370 CLASSICAL MYTHOLOGY -6A**  
Study of Greek and Roman myths embodied in classical literature and of their impact on Western civilization. All readings are in English. (4)

**GREEK**

**GRE 1120 BEGINNING CLASSICAL GREEK I**  
An introductory course in classical Greek grammar with appropriate readings. (4)

**PR:**

**GRE 1121 BEGINNING CLASSICAL GREEK II**  
PR: GRE 1120 or equivalent. An introductory course in classical Greek grammar with appropriate readings. (4)

**GRK 3120 BEGINNING MODERN GREEK I**  
An intensive study of basic skills; pronunciation, listening comprehension, speaking and some composition. (4)

**GRK 3121 BEGINNING MODERN GREEK II**  
PR: GRK 3120 or its equivalent. A continuation of GRK 3120. (4)

**GRW 4905 DIRECTED READING**  
Departmental approval required. (1-4)

**GRW 5905 DIRECTED READING**  
Departmental approval required. (1-4)

**LATIN**

**LAT 1120 (formerly LAT 1100) BEGINNING LATIN I**  
An introductory course in Latin grammar with appropriate readings. (4)

**PR:**

**LAT 1121 (formerly LAT 1101) BEGINNING LATIN II**  
PR: LAT 1120 or equivalent. An introductory course in Latin grammar with appropriate readings. (4)

**LNW 4363 MARTIAL**  
PR: LAT 1121 or equivalent. Readings in the Epigrams of Martial. (4)

**Study of the tradition, techniques, and artistry of the Roman epigram. Available to majors and non-majors.**

**PR:**

**LNW 4501 LIVY**  
PR: Basic knowledge of Latin. Readings in the ideas and artistry of this Roman historian. (4)

**LNW 4500 CICERO AND ROMAN PHILOSOPHY**  
PR: Basic knowledge of Latin. Readings in the philosophic writings of Cicero, together with a consideration of eclectic thought. (4)

**PR:**

**LNW 4501 SENECA AND ROMAN PHILOSOPHY**  
PR: Basic knowledge of Latin. Readings in the philosophic writings of Lucius Annaeus Seneca, together with an examination of Stoic, Epicurean, and Eclectic thought. (4)

**PR:**

**LNW 4634 CATULLUS**  
PR: Basic knowledge of Latin. Readings in Catullus. Study of techniques and tradition in Roman lyric poetry. (4)

**PR:**

**LNW 4644 (formerly LNW 4665) CICERO**  
PR: Basic knowledge of Latin. Readings in the epistles of Cicero. (4)

**PR:**

**LNW 4654 (formerly LNW 4675) HORACE**  
PR: Basic knowledge of Latin. Readings in the Odes and Epodes of Horace; study of the Ode’s tradition. (4)

**PR:**

**LNW 4660 VERGIL**  
PR: LAT 1121 or equivalent. Readings in Vergil’s Aeneid. Study of the tradition, techniques, and artistry of Roman epic poetry. Available to majors and non-majors. (4)

**PR:**

**LNW 4670 OVID**  
PR: LAT 1121 or equivalent. Readings in Ovid’s Metamorphoses. Study of Ovid’s technique, style, and artistry. Available to majors and non-majors. (4)

**PR:**

**LNW 4900 DIRECTED READING**  
Departmental approval required. (1-4)

**PR:**

**LNW 4930 SELECTED TOPICS**  
Study of an author, movement, or theme. (4)

**PR:**

**LNW 5900 DIRECTED READING**  
Departmental approval required. (S/U only.) (1-4)

**PR:**

**LNW 5934 SELECTED TOPICS**  
Study of an author, movement, or theme. May be repeated up to 12 credit hours. (4)

**PR:**

**COMMUNICATION**

**COM 3003 DIMENSIONS OF COMMUNICATION**  
PR: SPC 2023. An introductory survey of the various perspectives for the study of human communication. An exploration of the assumptions, constructs, and explanatory paradigms associated with the study of communication in its symbolic, aesthetic, historical, critical, and pragmatic dimensions. (3)

**PR:**

**COM 3110 COMMUNICATION FOR BUSINESS AND THE PROFESSIONS**  
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. (3)

**PR:**

**COM 3120 INTRODUCTION TO COMMUNICATION THEORY IN ORGANIZATIONS**  
PR: majors, COM 3003 or Cl; non-majors, COM 3122 or COM 3110 or Cl. A survey of communication concepts which impact upon organizational effectiveness. (3)

**PR:**

**COM 3122 INTERVIEW COMMUNICATION**  
A study of communication theory relative to interview situations with emphasis on the employment interview, appraisal interview, and persuasive interview. Students must sign up for a one-hour lab and the mass lecture. (3)

**PR:**

**COM 3122L INTERVIEW COMMUNICATION LAB**  
Interview laboratory for practice and individual consultation. Students must take this course in conjunction with the mass lecture COM 3122. Open to majors and non-majors. Not repeatable. (0)

**PR:**

**COM 4942 COMMUNICATION INTERNSHIP**  
PR: Communication major, minimum GPA 3.0, 75 hours completed, 15 hours of core requirements and 9 elective hours completed, and
to increase awareness of the dynamics of human communication in small group settings.

**SPC 3613 ARGUMENTATION AND DEBATE**
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 3594 FORENSICS**
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.

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**SPC 3594 FORENSICS**
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.
A study of representative works of selected American Realists and early Naturalists, among them Whitman, Dickinson, Twain, James, Howells, Crane, Dreiser, Wharton, Robinson, Dunbar, and Johnson.

A study of American literature from the eighteenth century to the present, including the works of such writers as W.E.B. Du Bois, Jean Toomer, Langston Hughes, Richard Wright, Ralph Ellison, LeRoi Jones, and Nikki Giovanni.

A study of the American novel from its beginnings through 1900, including such novelists as Cooper, Hawthorne, Melville, James, Twain, Crane, and Dreiser, among others.

A study of major trends and influences in American prose fiction from 1900 to the present. Includes works by such writers as Hemingway, London, Fitzgerald, Faulkner, West, Mailer, Bellow, Ellison, Donleavy, Updike, Vonnegut, and others.

A study of the major works of the “Southern Renaissance” including writers such as Faulkner, Wolfe, Caldwell, Hellman, McCullers, O’Connor, Warren, Styron, Allen Tate, and Donald Davidson.

The study of two or three related major authors in American literature, focusing on several major figures; 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 repeated twice for credit with different topics.

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.

A study of short 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.

PR: 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.

PR: CRW 3111, CRW 3112. A fiction workshop which provides individual and peer guidance and direction for the student’s writing and develops critical standards.

Examines 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 explored.

PR: CRW 3111. 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.

PR: CRW 3111, CRW 3112. A poetry workshop which provides individual and peer guidance and direction for the student’s writing and develops critical standards.

PR: CRW 3111, CRW 3112, CRW 3121. An advanced fiction workshop wherein works may be carried over from CRW 3121 or longer forms such as the novel may be begun. May be taken twice for credit.
British writers. Students will be expected to participate in class discussion, make formal presentations, and complete a major research project.

ENG 4936 HONORS SEMINAR II
PR: Admission to English Honors Program (should be taken concurrently with ENG 4935). A study of critical theory from Aristotle to the present. Students will be expected to participate in class discussion, make formal presentations, and complete a major research project.

ENG 4970 HONORS THESIS SEMINAR
PR: ENG 4935 and ENG 4936. For students writing honors theses. Class time will be devoted to exchange of research findings, instructor and peer critique of method, structure, and rhetoric of individual projects.

ENL 3015 BRITISH LITERATURE TO 1616
A survey of representative prose, poetry, and drama from its beginnings through the Renaissance, including such poems and figures as Beowulf, Chaucer, Malory, More, Hooker, Skelton, Wyatt, Sidney, Spenser, Shakespeare, Donne, and Jonson.

ENL 3200 BRITISH LITERATURE 1616-1780
A survey of the 17th Century and Neoclassical Literature, including such figures as Donne, Herbert, Crashaw, Vaughan, Marvell, Milton, Pope, Swift, Johnson, Boswell, and Goldsmith.

ENL 3210 BRITISH LITERATURE 1780-1900
A study of the poetry and poetics of the Romantic figures, with attention to the continuing importance of romantic thinking in contemporary affairs and letters; a survey of representative figures of the Victorian and Edwardian periods, including poetry, prose, and drama.

ENL 3273 BRITISH LITERATURE 1900-1945
Survey of poetry, drama, and fiction of such writers as Eliot, Yeats, Thomas, Conrad, Shaw, Joyce, Lawrence, Huxley, Woolf, Forster, Waugh, Owen, Auden, O’Casey, among others.

ENL 3331 EARLY SHAKESPEARE
A study of from six to eight of Shakespeare’s comedies, histories, and early tragedies, ending with Hamlet. Special attention to developing the student’s ability to read and interpret the text.

ENL 3332 LATE SHAKESPEARE
A study of from six to eight of Shakespeare’s problem plays, major tragedies, and late romances. Special attention to developing the student’s ability to read and interpret the text.

ENL 4122 BRITISH NOVEL THROUGH HARDY
A study of early and later British novels such as Fielding, Smollett, Sterne, Austen, Scott, Dickens, Eliot, and Hardy, among others.

ENL 4132 BRITISH NOVEL: CONRAD TO THE PRESENT
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, among others.

ENL 4171 HISTORY OF BRITISH DRAMA TO 1912
A study of the history of British Drama from its liturgical origins to the beginning of the twentieth century, exclusive of Shakespeare. Included are the mystery and morality plays, and representative works by Marlowe, Jonson, Middleton, Dryden, Congreve, Sheridan, and Wilde, among others.

ENL 4303 SELECTED AUTHORS
The study of two or three related major figures in English, American, or World Literature. The course may include such writers as Fielding and Austen, Keats and Yeats, Joyce and Flaubert, etc. Specific topics will vary. May be taken twice for credit with different topics.

ENL 4311 CHAUCER
An intensive study of The Canterbury Tales and major critical concerns.

ENL 4338 ADVANCED STUDIES IN SHAKESPEARE
PR: ENL 3331 or ENL 3332, or CI. Intensive study of selected plays of Shakespeare, with special attention to significant critical issues and to the Elizabethan and Jacobean cultural setting.

ENL 4341 MILTON
Study of the poetry and major prose of John Milton, with special emphasis on Paradise Lost.

LIN 4100 HISTORY OF THE ENGLISH LANGUAGE
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.

LIN 4340 TRADITIONAL ENGLISH GRAMMAR
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 4370 STRUCTURE OF AMERICAN ENGLISH
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 5107 HISTORY OF THE ENGLISH LANGUAGE
PR: Senior or Graduate standing. The course will trace the history of the English Language from its beginnings in Continental Europe, through the Anglo-Saxon and Middle English periods, the Renaissance, and the Nineteenth Century, to the present day with emphasis on both the structural development of the language and the political, social, and intellectual forces that determined this development.

LIT 2010 INTRODUCTION TO FICTION -SA
A study of the short story and novel as literary forms; not restricted to any historical period. Will not be counted toward the English major.

LIT 2021 CURRENT SHORT FICTION
Traditional and experimental short stories of this generation: such writers as Updike, Malamud, O’Connor, Roth, Barth, Ionesco, and Barthelme. Will not be counted toward the English major.

LIT 2030 INTRODUCTION TO POETRY -SA
A study of the poem as literary form; not restricted to any historical period. Will not be counted toward the English major.

LIT 2040 INTRODUCTION TO DRAMA -SA
A study of the major forms of drama as literature; not restricted to any historical period. Will not be counted toward the English major.

LIT 2081 CURRENT NOVELS
A study of major British and American novels since WW II; attention will be given to the cultural influences and recent literary trends. Will not be counted toward the English major.

LIT 2092 DRAMA: TEXTS AND FILMS
A study of the great works of drama, with emphasis on recent forms and themes. Films will demonstrate the possibilities of visualization. Will not be counted toward the English major.

LIT 3000 INTRODUCTION TO LITERATURE -SA
The nature and significance of literature in its various forms: fiction, drama, poetry; emphasis on the techniques of reading literature for intelligent enjoyment. Will not be counted toward the English major.

LIT 3022 MODERN SHORT NOVEL
A study of the novella from the nineteenth century to the present. Writers include: James, Dostoevsky, Camus, Styron, Nabokov, Gardner, Roth, Vonnegut, among others.

LIT 3073 CONTEMPORARY LITERATURE
An introduction to the fiction, poetry, and drama written since 1945 - American, British, Continental. 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 -SA
A study in English of the great works of Western Literature from its beginnings through the Renaissance, including the Bible, Homer, Sophocles, Plato, Euripides, Virgil, Cicero, Dante, Petrarch, Machiavelli, and Rabelais, among others.

LIT 3102 LITERATURE OF THE WESTERN WORLD SINCE THE RENAISSANCE -SA
A study in English of the great works of Western Literature from the Neoclassic to the Modern Period, including such writers as Moliere, Racine, Voltaire, Dostoevsky, Chekhov, Ibsen, Kafka, Gide, Sartre, and Camus, among others.

LIT 3144 MODERN EUROPEAN NOVEL
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.
HUM 2930 TWENTIETH-CENTURY BEST SELLERS (3)
A study of representative best-selling novels in twentieth century America; including such popular works as Peyton Place, Lady Chatterley's Lover, Exodus, and Catcher in the Rye, which have sold in excess of 5,000,000 copies and have served to portray our changing society and to reveal our changing literary taste.

HUM 3310 FANTASY AND SCIENCE FICTION (3)
A survey of fantasy and science fiction in England and America from Mary Shelley to the present; includes such writers as Poe, Melville, Ray Bradbury, Arthur C. Clarke, among others.

HUM 3374 THE BIBLE AS LITERATURE (3)
An examination of literary types, literary personalities of the Old and New Testaments, and Biblical archetypes of British and American literary classics.

HUM 3383 THE IMAGE OF WOMEN IN LITERATURE (3)
A survey of feminism, antifeminism, sexual identity, the feminine mystique, stereotyped and liberated female images from Sappho to the present, with special emphasis on women writers and on the emergence of the women's movement. (Also offered under Women's Studies.)

HUM 3410 RELIGIOUS AND EXISTENTIAL THEMES (3)
Theological and philosophical ideas, allusions, and symbols in the writings of Dostoevsky, Nietzsche, Mann, Joyce, Eliot, Camus, Sartre, among others.

HUM 3451 LITERATURE AND THE OCCULT (3)
An introduction to the occult tradition as a major ingredient in English, Continental, and American literature; analysis of the origins, classifications, and areas of the various magic arts from classical times through the present.

HUM 3718 SURVEY OF POETRY (3)
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.

HUM 3931 SELECTED TOPICS IN ENGLISH STUDIES (1-4)
Varying from semester to semester, the course examines in depth a predominant literary theme or the work of a select group of writers.

HUM 4011 THEORY OF FICTION (3)
Intensive study of the genres and varieties of fiction to ascertain the theoretical and technical problems involved in the work of fiction.

HUM 4930 SELECTED TOPICS IN ENGLISH STUDIES (1-4)
The content of the 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 repeated with different topics.

REA 1105 ADVANCED READING (3)
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.

REA 2405 SPEED READING DEVELOPMENT (2)
A course designed to develop speed reading techniques on various levels of difficulty. Emphasis is placed on comprehension via numerous practice drills. Will not be counted toward the English major. (S/U only.)

REA 2505 VOCABULARY (3)
A practical course in rapid vocabulary improvement for students in all areas. Stress is placed in words. Will not be counted toward the English major.

HUMANITIES

HUM 2930 SELECTED TOPICS (1-4)
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). May be repeated for credit with change of content. May be repeated up to 8 credit hours.

HUM 3224 THE ARTS (3)
Analyses of selected works of film, literature, music, and visual arts, including a variety of periods, nationalities and art forms, emphasizing artistic diversity. Especially recommended for students intending to take 4000-level Humanities courses at a future date.

HUM 3214 STUDIES IN CULTURE: THE CLASSICAL AND MEDIEVAL PERIODS (3)
Analyses of selected works of classical and medieval architecture, drama, sculpture, intellectual prose, and other art forms. Typical course focus is on architecture, drama, and intellectual prose.

HUM 3243 STUDIES IN CULTURE: THE RENAISSANCE AND THE NINETEENTH CENTURY (3)
Analyses of selected fiction, drama, painting, architecture, music, and other art forms.

HUM 3251 STUDIES IN CULTURE: THE TWENTIETH CENTURY (3)
Analyses of selected works of twentieth century art, primarily emphasizing film, with secondary emphasis on painting and fiction.

HUM 3271 THE CULTURE OF THE EAST AND WEST I (4)
Masterpieces of music, visual arts, theatre, literature, and philosophy in varying cultural and historical situations.

HUM 3273 THE CULTURE OF THE EAST AND WEST II (4)
Masterpieces of music, visual arts, theatre, literature, and philosophy in varying cultural and historical situations.

HUM 3580 CURRENT SCENE (2)
Live performances in contemporary media will be followed by discussions. The course will emphasize recent developments in the arts and some special attention to current innovations. (S/U only.)

HUM 4402 HUMANITIES IN THE ORIENT: INDIA (4)
PR: Sophomore standing or Cl. 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 THE ORIENT: CHINA (4)
PR: Sophomore standing or Cl. Examples from the arts and letters of China; their relationship to Taoism, Confucianism and other Chinese philosophies; Western influences on twentieth century Chinese arts and letters.

HUM 4406 HUMANITIES IN THE ORIENT: JAPAN (4)
PR: Sophomore standing or Cl. Examples from the arts and letters of Japan, their relationship to Zen Buddhism and other Japanese philosophy-religions; Western influences on twentieth century Japanese arts and letters.

HUM 4433 CLASSICAL ARTS AND LETTERS I (4)
PR: Sophomore standing or Cl. A study of the poetry, drama, philosophy, historical writing, painting, sculpture and architecture of ancient Greece, including such authors as Homer, Sophocles, Plato, and monuments such as the Parthenon.

HUM 4434 CLASSICAL ARTS AND LETTERS II (4)
PR: Sophomore standing or Cl. A study of the poetry, drama, philosophy, historical writing, painting, sculpture and architecture of ancient Rome, including such authors as Virgil, Livy, and Cicero, the monuments of Rome, Pompeii, and the Herculaneum.

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

HUM 4436 MEDIEVAL ARTS AND LETTERS II (4)
PR: Sophomore standing or Cl. A study of the culture of Western Europe from the 9th to 14th centuries. Readings will include poetry and religious works; examples of painting, architecture, sculpture and music will be studied.

HUM 4437 RENAISSANCE ARTS AND LETTERS I-6A (4)
PR: Sophomore standing or Cl. A study of the Italian Renaissance, 1300-1560, emphasizing Humanism, painting, architecture, literature, music and sculpture. Special study will be done of Petrarch, Giotto, DaVinci, and Michelangelo.

HUM 4438 RENAISSANCE ARTS AND LETTERS II-6A (4)
PR: Sophomore standing or Cl. 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 -6A (4)
PR: Sophomore standing or CI. This course includes the arts, literature, and music of the Baroque, Rococo, and Neo-Classical periods with special study of Rubens, Rembrandt, Bach, Haydn, and Mozart.

HUM 4442 ARTS AND LETTERS OF THE ROMANTIC PERIOD (4)
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 ARTS AND LETTERS (4)
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)
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 the various arts of the twentieth century.

HUM 4446 TWENTIETH CENTURY ARTS AND LETTERS II (4)
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 HUMANITIES IN AMERICA I (4)
PR: Sophomore standing or CI. Study of selected works of art, tracing the course of westward expansion in civilization, and the interaction between the arts and the sciences in American ways of life and work, 1790-1890.

HUM 4453 HUMANITIES IN AMERICA II (4)
PR: Sophomore standing or CI. Study of selected works, tracing the course of expansion in the production and enjoyment of works of art, and interaction between the idealistic and pragmatic concerns for development of the arts in the 20th century.

HUM 4462 LATIN AMERICAN ARTS AND LETTERS I (4)
PR: Sophomore standing or CI. Analysis of selected Latin American works of art in their cultural context, with emphasis on major art forms selected from the Pre-Columbian period.

HUM 4464 LATIN AMERICAN ARTS AND LETTERS II (4)
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)
PR: CI. Specialized individual study determined by the student’s needs and interests.

HUM 4930 SELECTED TOPICS IN HUMANITIES (1-4)
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; course may be repeated for credit with change of content.

HUM 4931 SEMINAR IN HUMANITIES (4)
PR: Humanities major or CI; Senior standing. Discussion of interdisciplinary humanities. Includes essay. (Fall term only.)

HUM 4941 STUDY ON LOCATION (1-4)
Prerequisites: None. The art of a culture will be examined during travel in groups, led by an instructor, to important cities or sites. Monuments, museums, architecture, plays, and/or concerts will be studied. Reading assignments and lectures.

LANGUAGE

General Foreign Languages

FOL 2200 GENERAL FOREIGN LANGUAGE II (1-3)
A general purpose course that may be used for transfer of credit, credit by examination, and similar matters; may also be used for formal courses in less commonly taught languages or for workshops in professional interpreting.

FOL 3100 GENERAL FOREIGN LANGUAGE I (1-4)
A general purpose course that may be used for transfer of credit,
C"OLLEGE OF ARTS AND LETTERS

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GERMAN

GER 1120 (formerly GER 1100) BEGINNING GERMAN I (4)
Development of basic skills in listening and reading comprehension, speaking and writing of German.

GER 1121 (formerly GER 1101) BEGINNING GERMAN II (4)
PR: GER 1120 or equivalent. Continued development of basic skills in listening and reading comprehension, speaking and writing German.

GER 2200 GERMAN III (3)
PR: GER 1121 or equivalent. A review of the basic structure of spoken and written German. May be taken concurrently with GER 2201.

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

GER 3240 CONVERSATION I (3)
PR: GER 1121. For development of basic conversational skills.

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

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

GER 4410 (formerly GER 4241) CONVERSATION II (3)
Free conversation based on the current German idiom.

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

GER 5845 HISTORY OF THE GERMAN LANGUAGE (3)
A diachronic approach to the study of the German language. The course traces the history and development of the language from Indo-European through Germanic, Old, Middle, and New High German.

GEW 4100 SURVEY OF GERMAN LITERATURE I (4)
Old High German and Middle High German literature in modern German translation; the literature of Humanism and Baroque, the classical period.

GEW 4101 SURVEY OF GERMAN LITERATURE II (4)
The romantic period, 19th and 20th centuries.

GEW 4900 DIRECTED STUDY (1-3)
Departmental approval required.

GEW 4930 SELECTED TOPICS (1-3)
Study of an author, movement or theme.

GEW 5475 20TH CENTURY LITERATURE TO 1945 (4)
A study of major styles in German literature from 1900 to WW II with emphasis on Hauptmann, Schnitzler, Hofmannsthal, George Rilke, Kaiser, Heym, Trakl, Thomas Mann, Hesse, Kafka, Benn, Brecht.

GEW 5489 20TH CENTURY LITERATURE: 1945 TO PRESENT (3)
Study of major trends in German literature since WW II with emphasis on Borchert, Frisch, Durrenmatt, Boll, Uwe, Johnson, Grass, Alchinger, Eich Enzensberger, Bachmann.

GEW 5515 THE ENLIGHTENMENT (3)
Selected dramas and critical writings by Lessing, Wieland, Kant.

GEW 5545 (formerly GEW 5541) ROMANTICISM (4)
Jancrease circle and Heidelberg circle; the late romantic period, the writers between Classicism and Romanticism.

GEW 5555 (formerly GEW 5551) REALISM (3)
Selected works by Grillparzer, Grabbe, Buchner, Hebbel, Heine, Immerman, Stifter, Keller, Meyer, Storm, Raabe, Hulshoff, and Morike.

GEW 5600 GOETHE (3)

GEW 5603 FAUST (3)
Sources, form, content, and literary significance of Urfaust and Faust.

GEW 5610 SCHILLER (3)
Selected dramas, philosophical and aesthetic writings.

GEW 5934 SELECTED TOPICS (1-3)
PR: Upper-level or graduate standing. Study of an author, movement or theme.

TOTAL OF 8 HOURS.

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

FRE 4470 ADVANCED OVERSEAS STUDY (1-6)
PR: FRE 3470 or CI. Intensive language study in France. Departmental approval required.

FRE 4905 DIRECTED STUDY (1-3)
Departmental approval required.

FRE 4930 SELECTED TOPICS (1-3)
Study of an author, movement or theme.

FRE 5425 (formerly FRE 5422) ADVANCED WRITTEN EXPRESSION (3)
PR: FRE 4421, or equivalent. Course is designed to give advanced training in free composition in French.

FRE 5556 (formerly FRE 5554) CONTEMPORARY FRANCE (3)
PR: FRE 3500 or equivalent or graduate standing. An advanced course in French civilization and culture including a study of recent social, artistic and political trends as well as various current intellectual movements. Text and discussions in French.

FRW 4100 INTRODUCTION TO FRENCH NOVEL (3)
A study of the history of the novel from its early appearance to present times with emphasis on the 19th and 20th centuries. Authors to be studied include Chretien de Troyes, Rabelais, Balzac, Flaubert, Proust, Camus, Sartre, Robbe-Grillet, and others. Specific content may vary from year to year.

FRW 5222 CLASSICAL PROSE AND POETRY (3)
PR: FRW 4101. Emphasis on Malherbe, La Fontaine, Boileau, Descartes, and Pascal.

FRW 5226 20TH CENTURY POETRY AND THEATRE (3)

FRW 5293 (formerly FRW 5293) THE 20TH CENTURY NOVEL (3)
PR: FRW 4100. Proust, Gide, Mauriac, Malraux, Camus, Robbe-Grillet.

FRW 5310 CLASSICAL DRAMA (3)
PR: FRW 4101. Cornelle, Moliere, and Racine.

FRW 5415 LITERATURE OF THE MIDDLE AGES (3)
PR: FRW 4100 or 4101. Major genres, including epic, Arthurian romances, drama and lyric poetry. Reading in modern French translation.

FRW 5425 (formerly FRW 5423) LITERATURE OF THE RENAISSANCE (3)
PR: FRW 4100 or 4101. A study of Renaissance French humanism including Rabelais, Montaigne, and Pleide poets.

FRW 5445 (formerly FRW 5440) 18TH CENTURY LITERATURE (3)
PR: FRW 4100. The classical tradition and the new currents of thought in the Age of Enlightenment.

FRW 5530 PRE-ROMANTICISM (3)

FRW 5535 ROMANTICISM AND EARLY REALISM (3)
PR: FRW 4101. A study of the romantic and early realistic movements with emphasis on Lamartine, Vigny, Musset, Hugo and Balzac.

FRW 5555 REALISM AND NATURALISM (3)
PR: FRW 4100 or 4101. A detailed study of realism and naturalism with emphasis on Flaubert, Zola, les Goncourt, Maupassant, and Daudet.

FRW 5934 SELECTED TOPICS (1-3)
PR: Upper-level or graduate standing. Study of an author, movement or theme.
An intensive study of basic skills: pronunciation, listening comprehension, speaking, and some composition.

PR: JPN 1120 or equivalent. A continuation of JPN 1120. More sophisticated oral/aural skills are attained. Basic reading skills are acquired.

The course features 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.

Development of basic skills in listening and reading comprehension, speaking and writing of Brazilian Portuguese.

PR: POR 1120 or equivalent. Continued development of basic skills in listening and reading comprehension, speaking and writing of Brazilian Portuguese.

The first course in the study of elementary Russian. Emphasis on the development of basic skills in comprehension, speaking and reading.

PR: RUS 1120 or CI. The second course in the elementary Russian. Emphasis on the development of basic skills in comprehension, speaking and reading.

A survey of the cultural history of Russia.

PR: Previous course in series or equivalent. Continuation of RUS 3240.

Study of an author, movement or theme.

Departmental approval required.

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.

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.

Development of basic skills in listening and reading comprehension, speaking and writing of Spanish.

PR: SPN 1120 or equivalent. A review of the basic structure of spoken and written Spanish. May be taken concurrently with SPN 2201.

PR: SPN 1121 or equivalent. Readings in Spanish on the intermediate level. May be taken concurrently with SPN 2201.
SPW 3240 CONVERSATION I (3)
PR: SPN 1121. For development of basic conversational skills.

SPW 3241 CONVERSATION II (3)
PR: SPN 2240 or equivalent. To improve fluency in spoken Spanish.

SPW 3300 COMPOSITION (3)
PR: SPN 2200-2201. A study of syntax, grammar, and writing.

SPW 3440 COMMERCIAL SPANISH (3)
PR: SPN 1121 or equivalent. An introduction to the Spanish language as used in undertaking ordinary business transactions.

SPW 3470 SELECTED TOPICS (1-6)
PR: SPN 1121. An intensive study-travel program in a Spanish-speaking country. Prior departmental approval and early registration are required.

SPW 3500 SPANISH CIVILIZATION (3)
PR: SPN 1121. The culture and civilization of Spain.

SPW 3520 SPANISH AMERICAN CIVILIZATION (3)
Readings and discussions on the culture and civilization of Spanish America. For majors and non-majors.

SPN 4301 EXPOSITORY WRITING (3)
PR: SPN 3300. Practical training in contemporary Spanish structure, usage and stylistic devices.

SPN 4410 ADVANCED CONVERSATION (3)
PR: SPN 3241 or equivalent. Intensive practice in the formulation and expression of ideas in standard Spanish.

SPN 4470 ADVANCED OVERSEAS STUDY (1-6)

SPN 5567 CONTEMPORARY SPAIN (3)
PR: SPN 3500 or equivalent or graduate standing. Advanced readings and discussions dealing with contemporary Spanish civilization and culture, including a study of recent social, artistic and political trends. Texts and discussions in Spanish.

SPN 5750 (Formerly SPN 5730) PHONOLOGY AND PHONETICS (3)
PR: SPN 3300. A study of the Spanish sound system.

SPN 5845 HISTORY OF THE SPANISH LANGUAGE (3)
Traces the development of Spanish from its Latin origins to the present.

SPW 3200 INTRODUCTION TO HISPANIC LITERATURE (3)
PR: SPN 2201 or equivalent. Prose fiction, drama, poetry, and essay; techniques of literary analysis.

SPW 4100 SURVEY OF SPANISH LITERATURE I (3)
PR: SPW 3200 or equivalent. A study of Spanish literature from its origins through the 17th century.

SPW 4101 SURVEY OF SPANISH LITERATURE II (3)
PR: SPW 3200 or equivalent. A study of the later periods of Spanish literature.

SPW 4130 SURVEY OF SPANISH-AMERICAN LITERATURE I (3)
PR: SPW 3200 or equivalent. An introduction to the study of Colonial Spanish-American literature from the Discovery to Modernism.

SPW 4131 SURVEY OF SPANISH-AMERICAN LITERATURE II (3)
PR: SPW 3200 or equivalent. An introduction to the study of Spanish-American literature from the Modernism period to the present. Emphasis on modern writers since Dario.

SPW 4900 DIRECTED STUDY (1-3)
Departmental approval required.

SPW 4930 SELECTED TOPICS (1-3)
Study of an author, movement or theme.

SPW 5245 THE PICARESQUE NOVEL (3)
Realistic prose-fiction of the Renaissance and Golden Age.

SPW 5315 (formerly SPW 5313) GOLDEN AGE DRAMA (3)
PR: SPW 4100. Lope de Vega, Alarcon, Tirso, Calderon, and others

SPW 5405 (formerly SPW 5400) MEDIEVAL LITERATURE (3)
PR: SPW 4100 or equivalent. 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 5485 (formerly SPW 5482) POST CIVIL WAR LITERATURE (3)
PR: SPW 4101. The drama and novel since 1936.

SPW 5535 ROMANTICISM (3)
PR: SPW 4101. Poetry and drama of the first half of the 19th century.

SPW 5555 REALISM (3)

SPW 5605 THE QUIJOTE (3)
Cervantes' masterpiece Don Quijote de la Mancha.

SPW 5725 GENERATION OF 1898 (3)
PR: SPW 4101. The major figures of the period and their main followers.

SPW 5726 GENERATION OF 1927 (3)

SPW 5755 MEXICAN LITERATURE (3)
PR: SPW 4130. Major writers of all genres. Emphasis on modern writers.

SPW 5765 LITERATURE OF ARGENTINA AND URUGUAY (3)
PR: SPW 4131. Emphasis on the gaucho theme and contemporary prose fiction.

SPW 5775 CARIBBEAN LITERATURE (3)
PR: SPW 4130. Emphasis on contemporary Cuban and Puerto Rican literature.

SPW 5934 SELECTED TOPICS (3)
PR: Upper-level or graduate standing. Study of an author, movement or theme.

Yoruba

YOR 1120 YORUBA I (4)
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.

YOR 1121 YORUBA II (4)
A continuation of Yoruba 1120, this course delves further into the structure of Yoruba and its grammatical functions. Also covered is practice in reading elementary texts with emphasis on grammar, vocabulary, and an appreciation for style. Also included is composition and drills in oral work. May be repeated up to 8 credit hours.

LIBERAL STUDIES

IDS 3300 STRUCTURES OF KNOWLEDGE AND KNOWING (4)
Distinguishing the modalities of human knowledge and awareness as reflected in the classic distinctions: sensory/motor/emotive; normative/descriptive/non-rational; logical/mathematical; ethical/physical/moral; qualitative/quantitative; mind/will/body; substance and function.

IDS 3310 PROGRESS AND UTOPIA (4)
Examination of the modern backgrounds of contemporary awareness: particularly the development of historical awareness of ourselves as scientifically, technologically, and socially progressive in relation to both utopic and non-utopic futures.

IDS 3320 FREEDOM AND THE SELF (4)
Analysis of the idea of freedom in relation to the idea of self, involving comparative treatment of the variety of standpoints of conceiving the individual personality in relation to the social context.

IDS 4344 SEMINAR: MAN AND NATURE (3)
PR: Senior standing or CI. Examination of aspects of contemporary theories of nature and man derived in the liberal arts, to the purpose of developing a general assessment of contemporary knowledge and methods of knowing.

IDS 4930 SELECTED TOPICS (1-4)
Course content determined by students' and instructor's interests and needs.

LINGUISTICS

ENS 1483 ENGLISH FOR FOREIGN STUDENTS I (3)
A special course for students learning English as a second language. Intensive study and drill in American English pronunciation and listening comprehension.
MASS COMMUNICATIONS

ADV 3000 INTRODUCTION TO ADVERTISING (3)
PR: MMC 3100 and MMC 3602. A study of the structures, functions, and persuasive language of advertising in mass media with attention to social, political, economic, and legal aspects.

ADV 3002 ADVERTISING DESIGN (3)
PR: ADV 3000 for advertising majors; VIC 3000 for other Mass Comm majors. Application of graphic design principles to various areas of advertising. Combining visual and verbal elements effectively.

ADV 3101 ADVERTISING COPYWRITING (3)
PR: ADV 3000 and ECO 2023. Study of laboratory experience in preparation of advertising copy for newspapers, magazines, radio, television, direct mail, outdoor displays, and special items.

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

ADV 3300 ADVERTISING MEDIA STRATEGY (3)

ADV 3700 RETAIL ADVERTISING PLANNING AND EXECUTION (3)
PR: ADV 3000 and ADV 3101. A study of retail advertising, including management decisions, processes, procedures, media planning, production techniques, and problems affecting the development of advertising to fulfill retail objectives.

ADV 4800 ADVERTISING CAMPAIGNS (3)
PR: ACG 2001, ADV 3002, ADV 3101, ADV 3300, MMC 4420, ECO 2015, ECO 2023, and MAR 3023. Advanced advertising course requiring planning and production of complete general advertising campaign, including research, production methods, budgeting, and media schedules.

ADV 4940 ADVERTISING PRACTICUM (1)
PR: CI. For selected advertising sequence majors. Practical experience outside the classroom in a live advertising situation where the student works for academic credit under the tutelage of a professional practitioner. (S/U only.)

FIL 3004 THE FILM AS MASS COMMUNICATION I: SYNTAX (3)
PR: MMC 3100 and MMC 3602. The language, conventions, elements, and patterns of the film medium as related to current models of effective mass communication and new theories of nonverbal communication. Concurrent laboratory experiences in control of light and line.

FIL 3800 THE FILM AS MASS COMMUNICATION II: RHETORIC AND STYLISTICS (3)
PR: FIL 3004. A continuation of FIL 3004 to include the effective arrangements of scenes and sequences in motion picture and television films. Concurrent laboratory experiences in sound and editing.

FIL 4205 ADVANCED CAMERA TECHNIQUES (3)
PR: FIL 3004. Advanced camera technology, professional procedures, emulsion selection, color control, studio and location shooting, laboratory methods, matte shooting, and special effects.

FIL 4206 ADVANCED FILM LIGHTING (3)
PR: FIL 4205. Advanced lighting of studio and location sets stressing professional procedures and standards from preproduction to post production.

FIL 4207 SENSITOMETRY AND PHOTOMETRICS (3)
PR: FIL 3004. The materials and processes of cinema photo; response of materials to development and exposure.

FIL 4404 SOCIAL HISTORY OF THE FILM, 1945 TO THE PRESENT (3)
PR: MMC 3100 and MMC 3602. The development of the film from 1945 to the present.

JOU 3006 MAGAZINES IN SOCIETY (3)
PR: MMC 3100 and MMC 3602. A study of the development of various types of magazines in America, and a critical analysis of current problems and performances of periodicals along with changes indicated for the future.

JOU 3100 BEGINNING REPORTING (3)
PR: MMC 3100 and MMC 3602. Basic instruction in news judgment, sources of news, newsgathering, and newswriting techniques. Typing ability is required.

JOU 3101 ADVANCED REPORTING (3)
PR: POS 2041, JOU 3100, or RTV 3300 (RTV majors only), JOU 4200 (may be taken concurrently), and PHI 1103. Getting information 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)
PR: CRW 2100, JOU 3100. Planning, researching, writing, and marketing articles for general and special interest magazines and newspaper magazine supplements; experiences in developing article idea; inductive analysis of contemporary magazine articles.

JOU 3306 CRITICAL WRITING: EDITORIALS, REVIEWS, COLUMNS (3)
PR: JOU 3101, 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 art, drama, music and book reviews and satire, sports, or personal columns.

**JOU 3940 REPORTING PRACTICUM** (1)
PR: JOU 3101 and CI. For selected News-Editorial Sequence majors. Practical experience outside the classroom in a live newspaper reporting situation where the student works for academic credit under the tutelage of a professional practitioner. (S/U only.)

**JOU 4104 PUBLIC AFFAIRS REPORTING** (3)
PR: JOU 3101, POS 2041 and 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)
PR: JOU 3100, and SYG 1010. Evaluating news and its display; editing and rewriting copy for the mass media, with emphasis on the daily newspaper; news judgment, headlines, makeup; ethical problems.

**JOU 4206 NEWSPAPER DESIGN AND TYPOGRAPHY** (3)
PR: JOU 4200 or CI. Theoretical and practical applications of newspaper design; problems in newspaper layout; the research of newspaper typography and design and its application; redesign of contemporary newspapers.

**JOU 4941 EDITING PRACTICUM** (1)
PR: Senior standing, JOU 4200 and CI. For selected News-Editorial Sequence majors. Practical experience outside the classroom at a daily newspaper copydesk, where the student works for academic credit under the tutelage of a professional news editor. (S/U only.)

**JOU 4944 MAGAZINE PRACTICUM** (1)
PR: Senior standing and CI. For selected Magazine Sequence majors. Practical experience outside the classroom in a live magazine or industrial publication situation where the student works for academic credit under the tutelage of a professional practitioner. (S/U only.)

**MMC 3100 WRITING FOR THE MASS MEDIA** (3)
PR: Sophomore standing; 2.7 GP; grade of "C" in ENC 1101, ENC 1102, typing proficiency, and passing score on English Diagnostic Test. An introduction to the basic skills of writing for the mass media with practice in library research, persuasive writing, and informational writing.

**MMC 3602 MASS COMMUNICATIONS AND SOCIETY** (3)

**MMC 4123 MEDIA SCRIPT WRITING** (3)
PR: MMC 3100 and MMC 3602. An introduction to the techniques of writing scripts for photographic and multi-media presentation, electronic media, and industrial and documentary film.

**MMC 4200 HISTORY AND PRINCIPLES OF COMMUNICATIONS LAW** (3)
PR: MMC 3100 and MMC 3602. Historic and Constitutional backgrounds of freedom and control of expression, statutory enactments, major Supreme Court cases, court decisions and administrative rulings which have shaped legal control of communications.

**MMC 4420 RESEARCH METHODS IN MASS COMMUNICATIONS** (3)
PR: MMC 3100 and MMC 3602. An introduction to the theory and practice of quantitative and historical research methods as applicable to the study of media and mass communications. Emphasis on survey research, evaluation of data, and report writing.

**MMC 4900 DIRECTED READING IN MASS COMMUNICATIONS** (1-3)
PR: Junior standing, CC and CI. Reading and directed study in special topics.

**MMC 4910 INDIVIDUAL RESEARCH IN MASS COMMUNICATIONS** (1-3)
PR: CC and CI. The course provides means for a student to do independent study in an area not covered by a numbered course.

**MMC 4930 SELECTED TOPICS IN MASS COMMUNICATIONS STUDIES** (1-3)
PR: Junior standing. Courses designed to meet current or specific topics of interest to instructors and students.

**MMC 4945 MEDIA INTERNSHIP-SEMINAR** (3)
PR: Cl and 15 hours in Mass Com. courses and completion of an 8-12 week media internship with newspaper, broadcast station, or other media-related agency approved by the department and paid by the sponsor. Reports on experiences for discussion and evaluation. (S/U only.)

**PGY 3610 PHOTOJOURNALISM I** (3)
PR: MMC 3100 and MMC 3602. Camera operation, darkroom techniques, picture composition; editing, ethics, history, and laws in connection with photojournalism.

**PGY 3620 PHOTOJOURNALISM II** (3)
PR: PGY 3610. Advanced process and practice of photography for publication. Content includes advanced camera and laboratory techniques, publication requirements and theory of photochemical color separation used in magazine and newspaper. Emphasis is placed on student production.

**PGY 4110 COLOR PHOTOGRAPHY** (3)
PR: PGY 3620. Development of knowledge and skills of color photography for publication and presentation. Emphasis is on the use of transparency and negative color materials in their application to the media. Laboratory required.

**PUR 3000 PRINCIPLES OF PUBLIC RELATIONS** (3)
PR: ECO 2013, ECO 2023, MAN 3025, MMC 3100 and MMC 3602. Theories of public relations within corporate and institutional structures; ethical standards of practice, and relationships of the practice to the public media and other modes of contemporary communication.

**PUR 4001 ADVANCED PUBLIC RELATIONS** (3)
PR: PUR 3000, PUR 4100, and MMC 4420. As final course in PR sequence, it involves intensive study of counseling and problem-solving techniques used in professional practice. Analysis of case studies and preparation of complete PR program. Extensive reading in the literature of contemporary practice.

**PUR 4100 WRITING FOR PUBLIC RELATIONS** (3)
PR: JOU 3100, PUR 3000. Persuasive writing techniques unique to the practice of public relations; application of principles and ethical practices to problem-solving situations drawn from case studies; writing formats used in promotional and publicity literature.

**PUR 4401 PUBLIC RELATIONS: ISSUES, PRACTICES AND PROBLEMS** (3)
PR: PUR 3000. The nature of specialized areas of public relations and the role of the public relations specialist. The conceptual definitions and the technical approaches to the structure, process and functions of such specialized areas as public information, community relations, etc. Trends and techniques of communication.

**PUR 4700 PUBLIC RELATIONS PRACTICUM** (1)
PR: Senior standing and CI. For selected Public Relations Sequence majors. Practical experience outside the classroom in a professional public relations situation where the student works for academic credit under the tutelage of a professional practitioner.

**RTV 3000 INTRODUCTION TO BROADCASTING** (3)
PR: MMC 3100 and MMC 3602. A survey of the organization, structure, and function of the broadcasting industry.

**RTV 3100 WRITING FOR RADIO AND TV** (3)
PR: ECN 3310 or ECD 2100, RTV 3000. The writing of radio and television scripts such as documentaries, children's programs, commercials, dramas, talks, and demonstrations.

**RTV 3210 RADIO PRODUCTION AND DIRECTION** (3)
PR: RTV 3000. Radio production and direction; laboratory and broadcast experiences.

**RTV 3225 VIDEO WORKSHOP** (1)
PR: MMC 3100 and MMC 3602. An introduction to the techniques and applications of field television production and electronic editing.

**RTV 3230 BROADCASTING ANNOUNCING** (3)
PR: ORI 3000, RTV 3000, SPC 2023 or SPC 2050. Development of skills required for effective announcing and other appearances before microphone and camera.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTV 3300</td>
<td>BROADCAST NEWS</td>
<td>(3)</td>
<td>PR: RTV 3000. The study and methods in gathering, writing, and editing newscasts for radio and television.</td>
</tr>
<tr>
<td>RTV 3041</td>
<td>RADIO PRACTICUM</td>
<td>(1)</td>
<td>PR: RTV 3210 and Cl. The study, rehearsal, and production of radio programs and materials. (S/U only.)</td>
</tr>
<tr>
<td>RTV 4220</td>
<td>TV PRODUCTION AND DIRECTION</td>
<td>(3)</td>
<td>PR: RTV 3000, and junior standing. A basic course in the techniques of producing and directing TV programs.</td>
</tr>
<tr>
<td>RTV 4301</td>
<td>TV NEWS FILM</td>
<td>(3)</td>
<td>PR: RTV 3300 and RTV 3225. Techniques in writing and filming for television news.</td>
</tr>
<tr>
<td>RTV 4402</td>
<td>MEDIA CRITICISM: BROADCASTING</td>
<td>(3)</td>
<td>PR: RTV 3000. A critical study of contemporary broadcast content.</td>
</tr>
<tr>
<td>RTV 4500</td>
<td>THE BROADCAST PROGRAM</td>
<td>(3)</td>
<td>PR: RTV 3000. Program concepts, resources, costs, selection and scheduling. Analysis of programming in terms of structures, appeals and strengths.</td>
</tr>
<tr>
<td>RTV 4700</td>
<td>BROADCAST LAW</td>
<td>(3)</td>
<td>PR: RTV 3000, RTV 3300, MMC 4200 and POS 2112, or RTV 3000, RTV 4500, RTV 3100 or RTV 3300, and Senior standing. A study of broadcasting industry from the perspective of governmental regulation and the political process with special emphasis on how regulatory policy is determined.</td>
</tr>
<tr>
<td>RTV 4902</td>
<td>TV PRACTICUM</td>
<td>(1)</td>
<td>PR: RTV 4220 and Cl. The study, rehearsal and production of television programs and materials. (S/U only.)</td>
</tr>
<tr>
<td>VIC 3000</td>
<td>INTRODUCTION TO VISUAL COMMUNICATIONS</td>
<td>(3)</td>
<td>PR: MMC 3100 and MMC 3602. The survey of visual communication theory, techniques, and their contemporary application and social influences as applied to the visual media with emphasis on still photography, motion pictures, video tape, and graphics.</td>
</tr>
<tr>
<td>VIC 3943</td>
<td>VISUAL COMMUNICATION PRACTICUM</td>
<td>(1)</td>
<td>PR: Senior standing and Cl. For selected Visual Communications Sequence majors. Practical experience outside the classroom in a professional environment where the student works for academic credit under the tutelage of a professional practitioner. (S/U only.)</td>
</tr>
</tbody>
</table>

### PHILOSOPHY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI 3000</td>
<td>INTRODUCTION TO PHILOSOPHICAL TRADITIONS -6A</td>
<td>(3)</td>
<td>An introduction to selected philosophical problems and traditions.</td>
</tr>
<tr>
<td>PHI 3962</td>
<td>HISTORY OF PHILOSOPHY: ANCIENT AND MEDIEVAL</td>
<td>(3)</td>
<td>A survey of Western philosophy from the pre-Socratics to the end of the Middle Ages.</td>
</tr>
<tr>
<td>PHI 3942</td>
<td>HISTORY OF PHILOSOPHY: MODERN</td>
<td>(3)</td>
<td>A survey of Western philosophy from the end of the Middle Ages to the nineteenth century.</td>
</tr>
<tr>
<td>PHI 3440</td>
<td>CONTINENTAL PHILOSOPHY</td>
<td>(3)</td>
<td>A study of developments in post-Kantian European philosophy.</td>
</tr>
<tr>
<td>PHI 4600</td>
<td>CONTEMPORARY PHILOSOPHY -6A</td>
<td>(3)</td>
<td>Selected schools of twentieth century thought such as idealism, positivism, pragmatism, realism, and existentialism.</td>
</tr>
<tr>
<td>PHI 4700</td>
<td>AMERICAN PHILOSOPHY -6A</td>
<td>(3)</td>
<td>Major traditions in American thought, Puritanism, the Enlightenment, Transcendentalism, Idealism, Pragmatism, and Analytic Philosophy in relation to American culture.</td>
</tr>
<tr>
<td>PHI 1000</td>
<td>GREAT PHILOSOPHERS OF THE WESTERN WORLD</td>
<td>(2)</td>
<td>Lectures and discussions of the great philosophers since Plato, focusing on particular problems.</td>
</tr>
<tr>
<td>PHI 1010</td>
<td>PHILOSOPHIC CONTROVERSIES</td>
<td>(2)</td>
<td>A discussion of central controversies in philosophy such as the nature of love, violence, freedom, truth, morality, etc.</td>
</tr>
<tr>
<td>PHI 1103</td>
<td>CRITICAL THINKING</td>
<td>(3)</td>
<td>Methods of thinking that lead to reliable conclusions, with emphasis on concrete cases in ordinary thinking and the sciences.</td>
</tr>
<tr>
<td>PHI 2100</td>
<td>INTRODUCTION TO FORMAL LOGIC -6A</td>
<td>(3)</td>
<td>An elementary study of proposition, predicate, class and syllogistic logic with some attention to basic problems of logical theory.</td>
</tr>
<tr>
<td>PHI 3013</td>
<td>INTRODUCTION TO PHILOSOPHICAL PROBLEMS -6A</td>
<td>(3)</td>
<td>An introduction to major philosophical problems through readings from representative thinkers.</td>
</tr>
<tr>
<td>PHI 3404</td>
<td>SCIENTIFIC METHOD</td>
<td>(3)</td>
<td>Probability, inductive inference, the hypothetico-deductive method, experimentation, and selected topics in the philosophy of science.</td>
</tr>
<tr>
<td>PHI 3600</td>
<td>ETHICAL THEORY</td>
<td>(3)</td>
<td>A study of ethical theories, concepts, problems and methods.</td>
</tr>
<tr>
<td>PHI 3601</td>
<td>CONTEMPORARY MORAL ISSUES</td>
<td>(3)</td>
<td>Open to all students. A study of contemporary moral issues concerning racism, sex, sexism, abortion, poverty, crime, war, suicide, and human rights in general.</td>
</tr>
<tr>
<td>PHI 3631</td>
<td>ETHICS AND BUSINESS</td>
<td>(3)</td>
<td>An application of traditional ethical theories to contemporary problems in business.</td>
</tr>
<tr>
<td>PHI 3634</td>
<td>BIOMEDICAL ETHICS</td>
<td>(3)</td>
<td>This course will focus on the ethical issues arising from advances in medical practice, delivery of health care, and scientific research.</td>
</tr>
<tr>
<td>PHI 3700</td>
<td>PHILOSOPHY OF RELIGION -6A</td>
<td>(3)</td>
<td>Analysis of religious experience and activity and examination of principal religious ideas in light of modern philosophy.</td>
</tr>
<tr>
<td>PHI 3905</td>
<td>DIRECTED STUDY</td>
<td>(1-4)</td>
<td>PR: Cl. Individual study directed by a faculty member. Approval slip from instructor required.</td>
</tr>
<tr>
<td>PHI 3930</td>
<td>SELECTED TOPICS</td>
<td>(1-4)</td>
<td>PR: Cl. Selected topics according to the needs of the student.</td>
</tr>
<tr>
<td>PHI 4320</td>
<td>PHILOSOPHY OF MIND -6A</td>
<td>(3)</td>
<td>A study of historical and current issues in philosophy of mind, including the nature and status of mind, mind/body dualism, the relationship of mind and body, the problems of other minds, the physical basis for intelligence, etc.</td>
</tr>
<tr>
<td>PHI 4360</td>
<td>THEORY OF KNOWLEDGE -6A</td>
<td>(3)</td>
<td>An examination of human knowledge; its scope and limits, and an evaluation of evidence, criteria of truth, the nature of belief, conditions for meaningfulness, theories of perception, and a study of memory and sense perception in the four major fields of nature, history, personal experience, and the a priori.</td>
</tr>
<tr>
<td>PHI 4600</td>
<td>AESTHETICS -6A</td>
<td>(3)</td>
<td>A study of traditional and contemporary aesthetic theories with emphasis on creative process, the nature of the art work, the aesthetic response, expressiveness, form and content as well as art and morality.</td>
</tr>
<tr>
<td>PHI 4906</td>
<td>DIRECTED STUDY</td>
<td>(1-4)</td>
<td>PR: Cl. Individual study directed by a faculty member. Approval slip from instructor required.</td>
</tr>
<tr>
<td>PHI 5933</td>
<td>SELECTED TOPICS</td>
<td>(1-3)</td>
<td>PR: Cl. Selected topics according to the needs of the senior students. Approval slip from instructor required.</td>
</tr>
<tr>
<td>PHI 5135</td>
<td>SYMBOLIC LOGIC</td>
<td>(3)</td>
<td>PR: PHI 2100 or Cl. Study of topics such as the following: Metatheory of propositional and predicate logic, related metatheoretic results, alternative logics.</td>
</tr>
<tr>
<td>PHI 5225</td>
<td>PHILOSOPHY OF LANGUAGE</td>
<td>(3)</td>
<td>PR: Eight hours of philosophy, major in linguistics, or Cl. An examination of semantical, syntactical, and functional theories of language with special attention given to the problems of meaning, linguistic reference, syntactical form, and the relations between scientific languages and ordinary linguistic usage. Seminar format.</td>
</tr>
<tr>
<td>PHI 5913</td>
<td>RESEARCH</td>
<td>(1-4)</td>
<td>PR: Cl. Individual research supervised by a faculty member. Approval slip from instructor required.</td>
</tr>
<tr>
<td>PHI 5934</td>
<td>SELECTED TOPICS</td>
<td>(1-3)</td>
<td>PR: Cl. Selected topics according to the needs of the student. Approval slip from instructor required.</td>
</tr>
<tr>
<td>PHM 3021</td>
<td>PHILOSOPHIES OF LOVE AND SEX</td>
<td></td>
<td>Discussion of Philosophes of Love/Sex of Plato, Aristotle, Epicurus, Aquinas, Hume, Kant, Schopenhauer, Russell, Sartre, Marx, etc.</td>
</tr>
<tr>
<td>PHM 3100</td>
<td>SOCIAL PHILOSOPHY -6A</td>
<td>(3)</td>
<td>An analysis of rival theories of social order and their philosophical foundations.</td>
</tr>
</tbody>
</table>
A study of the fundamental concepts of law from a philosophical standpoint including crime, justice, punishment, free speech, insanity, etc.

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.

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.

A survey of political philosophy in the twentieth century, including an examination of the ethical, metaphysical and epistemological bases of these philosophies.

A study of the religious and atheistic existentialists and the bearing of their views on religion, ethics, metaphysics, and theory of knowledge.

The examination of Plato will include the dialogues Protagoras, Georgias, Meno, Republic, etc.

Study of Aristotle’s philosophy.

Lecture and discussion of Kant’s philosophy, especially The Critique of Pure Reason.

A careful study of the epistemologies of Descartes, Spinoza, Leibniz, and Malebranche.

A careful study of epistemologies of Locke, Berkeley, Hume, and Thomas Reid.

A study of the method devoted to clarifying philosophical problems through analysis of the language in which these problems are stated.

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.


Belief structures and behaviors of native American religions, Hinduism, Buddhism, Chinese religions, Judaism, Christianity and Islam, examined in films and in the reading of core religious texts.

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.

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.

A course designed to allow the student to survey the wide spectrum of contemporary sects and cults and learn what motivates their development.

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

Explores the relations between religion, ethics, and society in Eastern and Western cultures, and the critical problems raised by the emergence of modern, secularized civilization. Open to majors and non-majors.

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 3210 and REL 4221 may not both be credited toward the major.

An introduction to the critical study of the New Testament in context of Christian beginnings in the first century A.D. REL 3240 and REL 4244 may not both be credited toward the major.

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.

An introduction to and 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.

All religions of the world came to India and all became Indian. What is this “Indianess” which stems from Hinduism, Buddhism, Jainism and Sikhism, but extended itself to include Judaism, Christianity, Islam, Zoroastrianism and Bahai’i. Readings from classical texts and modern literature.

This course will investigate the philosophy of ancient China and its two major interpreters, Lao Tzu and Confucius. It will also look at the native Japanese Shinto religion.

An examination of the central ideas of recent theological thinkers; such men as Barth, Brunner, Bultmann, Bonhoeffer, Rahner, Tillich, Cox, Althizer, Buber, Niebuhr.

The historical development of Christianity, its ideas and institutions, from the first century to the rise of religious modernism in the 19th century.

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.

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.

A study of the history of Judaism and the Jews from the third century of our era through the Middle Ages to the Emancipation in the 19th century. Taking History of Judaism I first is advantageous.

A study of Jewish life in the West since 1789, emphasizing Jewish beliefs, practices, and institutions.

PR: Cl. Individual guidance in concentrated reading on a selected topic.
REL 3921 COLLOQUIUM
This colloquium will be held at least 3 times each semester in order to bring all religious studies faculty and undergraduate majors together to discuss research of a particular faculty member, student, or guest scholar. May be repeated up to 3 semester hours. (S/U only.)

REL 3936 SELECTED TOPICS
PR: Cl. Course contents depend on students' needs.

REL 4161 RELIGION, TECHNOLOGY AND SOCIETY
An exploration of the way in which religion and technology have interacted in Western civilization so as to both express and transform human values and identity. Special emphasis will be given to the value questions raised by modern technology. Open to majors and non-majors.

REL 4162 RELIGION, SCIENCE AND SOCIETY
This course will explore the religious roots of science and the history of its emancipation. Special emphasis will be given to the interaction of religion and science in contemporary society. Open to majors and non-majors.

REL 4171 CONTEMPORARY CHRISTIAN ETHICS-3A
PR: Jr. standing or Cl. This course will survey several major approaches to contemporary Christian ethics and their application to a number of ethical issues peculiar to personal and social life in contemporary society. Open to majors and non-majors.

REL 4193 COMPARATIVE MYSTICISM
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.

REL 4221 BIBLE I/OLD TESTAMENT- LAW AND HISTORY
An examination of the Pentateuch (Torah) from the point of view of its literary development, religious traditions, historical background, law, covenant theology, and the history of the religion of Israel.

REL 4234 BUDDHISM IN INDIA, SRI LANKA, AND SOUTH EAST ASIA
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 4244 BUDDHISM IN CHINA, JAPAN, AND TIBET
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 4256 FROM MYTH TO CHRISTIANITY
Study of the religions/mythologies of the ancient Middle East and Eastern Mediterranean and how their influences shaped the theology and practices of Christianity up to the end of the fourth century; influences of many of which continue to be evident in the traditional Roman and Eastern Orthodox churches.

REL 4910 UNDERGRADUATE RESEARCH
PR: Junior standing and Cl. Individual investigations with faculty supervision.

REL 4931 SEMINAR IN RELIGION
A course designed for persons, especially Religious Studies majors, whose prior religious studies have prepared them for a cooperative creative and/or research effort in the area of religion.

REL 4936 SELECTED TOPICS
PR: Junior standing and Cl. Individual investigations with faculty supervision.

REL 4939 THE DEVELOPMENT OF RELIGIOUS STUDIES
Course designed for senior majors (and minors) in religious studies to complement REL 4931 (Senior Seminar). 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.

REL 4939 THE DEVELOPMENT OF RELIGIOUS STUDIES
Course designed for senior majors (and minors) in religious studies to complement REL 4931 (Senior Seminar). 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.

Ancient Studies Sequence
CLA 3000 ANCIENT CIVILIZATIONS
Study of the character, ideas, and cultural achievements of the peoples of the Ancient Middle East and Mediterranean and their relevance for modern Western civilization.

CLA 3801 HISTORY OF THE ALPHABET
Study, in reasonable detail, of the evolution of our "Roman" alphabet, as well as of other ancient and modern alphabets, from the writing system of ancient Egypt.

CLA 4160 EGYPTIAN CIVILIZATION
Study of the Ancient Egyptian civilization, including customs, religion, art and architecture, language and literature, science and the calendar, and an introduction to hieroglyphic writing. (Alternate years.)

CLA 4171 MESOPOTAMIAN CIVILIZATION
Study of the Ancient Mesopotamian (Sumero-Babylonian) civilization, including customs, religion, art and architecture, languages and literatures, science and the calendar, and an introduction to cuneiform writing. (Alternate years.)

CLA 4900 DIRECTED READINGS
PR: Consent of coordinator prior to registration. Readings in special topics chosen by the student in cooperation with the instructor. Reading of literature also possible in English translation.

CLA 4930 SELECTED TOPICS
Course contents depend on student demand and instructor's interest and may range over the whole field of Ancient languages, literatures, and civilizations. Offerings on a semi-regular basis include Tongues of the Bible (2), and The Bible as History (3).

HEB 1120, 1121 (formerly HEB 3120, 3121) BASIC HEBREW I, II
Designed to give students a working knowledge of Classical (Biblical) Hebrew and to introduce them to the Biblical literature in the original language.

NOTE: In any of the numbers CLA 4900, CLA 4930, enrollment is repeatable for different subject matters.
ACCOUNTING/LAW

ACG 3074 MANAGERIAL ACCOUNTING FOR ENGINEERS (3)
The study of the uses of accounting data internally by managers in planning and controlling the affairs of organizations.

ACG 3102 INTERMEDIATE ACCOUNTING I (4)
PR: ACG 2111. Measurement theory and methodology underlying income measurement and reporting of financial position. The study of compound interest fundamentals, cash, temporary investment, receivables, inventories, property and equipment, intangibles, and long term investments.

ACG 3112 INTERMEDIATE ACCOUNTING II (4)

ACG 3341 COST ACCOUNTING AND CONTROL I (3)
PR: FIN 3403, QMB 3200. Deals with relevant costs for decision making, standards and job order costing, flexible budgeting direct and absorption costing, regression analysis and decision models.

ACG 3401 ACCOUNTING INFORMATION SYSTEMS (3)

ACG 4205 ADVANCED ACCOUNTING (4)
PR: ACG 3112. Accounting for business combinations, preparation of consolidated financial statements, home office and branch operations, accounting for international operations and partnership.

ACG 4351 COST ACCOUNTING AND CONTROL II (3)
PR: ACG 3341. Further development of the material covered in ACG 3341 with special emphasis on cost allocation issues and accounting in the new manufacturing environment.

ACG 4505 NONPROFIT ORGANIZATION ACCOUNTING (3)

ACG 4632 AUDITING I (3)
PR: ACG 3112, ACG 3401, and QMB 3200. Principles and procedures of internal and public auditing. The ethics, responsibilities, standards, and reports of professional auditing.

ACG 4642 AUDITING II (3)
PR: ACG 4632. Further development of material covered in ACG 4632, with special emphasis on additional reporting topics and audit techniques not previously addressed.

ACG 4805 CONTINUOUS-ACCOUNTING THOUGHT (3)
PR: Intermediate Accounting II or equivalent. An in-depth coverage of selected topics in accounting. Emphasis is placed on current significant developments that have taken place in the profession which the student should have for a well-rounded background in accounting but have not been exposed to in previous courses. Available to majors and nonmajors.

ACG 4901 INDEPENDENT STUDY (1-3)
PR: Consent of Director. Specialized independent study determined by the students' needs and interests. May be repeated up to 6 credit hours. (S/U only.)

ACG 4911 INDEPENDENT RESEARCH (1-4)
PR: Consent of Director. Individual study contract with instructor and director required. The research project will be mutually determined by the student and instructor. May be repeated up to 8 hours.

ACG 4931 SELECTED TOPICS IN ACCOUNTING (1-4)
PR: CI. The course content will depend on student demand and instructor's interest.

ACG 5935 SELECTED TOPICS IN ACCOUNTING (1-4)
PR: CI. To allow advanced undergraduate students and graduate students to research and study contemporary and emerging topics.
in the field. May be repeated up to 6 credit hours.

TAX 4001 FEDERAL TAXES I (3)
PR: ACQ 2011. An introduction to the federal income tax structure. Use of tax services and the concept of taxable income primarily applicable to individuals.

TAX 4015 FEDERAL TAXES II (3)
PR: TAX 4001. Advanced study of the federal income tax structure. Special topics and the concept of taxable income as it applies primarily to business enterprises.

ECONOMICS

ECO 2013 ECONOMIC PRINCIPLES (MACROECONOMICS) (3)
PR: ECO 2023. Introduction to the theory of income determination with emphasis on applications of monetary and fiscal policies. Topics discussed are: objectives of full employment, price stability, economic growth, and balance of payments stability.

ECO 2023 ECONOMIC PRINCIPLES (MICROECONOMICS) (3)
Fundamental economic concept of scarcity, and the problem of choice. How an economy decides what to produce, how to produce and how to distribute goods and services to participants in the economy. Attention is focused on factors affecting consumer wants and on the determination of prices in markets.

ECO 3101 INTERMEDIATE PRICE THEORY (3)
PR: ECO 2023. Analysis of supply and demand as related to product resource pricing under the various market structures.

ECO 3103 INTERMEDIATE INCOME & MONETARY ANALYSIS (3)
PR: ECO 2013 and ECO 3101 with a grade of "C" or better. Analysis of the determination of income, employment, prices, and interest rates. Emphasis is placed on the interaction of aggregate demand and aggregate supply.

ECO 3622 AMERICAN ECONOMIC HISTORY (3)
PR: ECO 2023. The growth and evolution of American economic institutions from Colonial times to the present.

ECO 3703 INTERNATIONAL ECONOMICS (3)
PR: ECO 3101 with a grade of "C" or better. Role of international trade in the U.S. economy. Emphasis is placed on the bases of trade and the nature of gains from trade, balance of payments, exchange rate determination, equilibrating mechanisms for restoring balance of payments stability and international commercial policy.

ECO 4213 MONEY AND MONETARY THEORY (3)
PR: ECO 3203. Examination of the impact of the financial sector on real and nominal economic magnitudes. The course approaches its subject matter through the theory of portfolio and capital adjustments.

ECO 4303 HISTORY OF ECONOMIC THOUGHT (3)
PR: ECO 3101 with a grade of "C" or better. The development of economic schools of thought, from Plato to Marshall, are traced and analyzed. The impact of historical and political conditions will be considered.

ECO 4323 MARXIST POLITICAL ECONOMY (3)
PR: ECO 2013, or Cl. An examination of the Marxian school of thought in economics. Application of Marxist economic theory to problems of advanced capitalist and socialist societies.

ECO 4401 INTRODUCTION TO MATHEMATICAL ECONOMICS (3)
PR: ECO 2013, and QMB 3200, MAC 2233 or Cl. Economic analysis using mathematical tools such as matrix algebra and differential calculus. Models of optimizing behavior and economic equilibrium.

ECO 4504 PUBLIC FINANCE (3)
PR: ECO 3101 with a grade of "C" or better. Examination of the public sector and its contribution to economic welfare. Government expenditures and revenues in relation to their impact on resource allocation, income distribution, stabilization, and economic growth.

ECO 4713 INTERNATIONAL MONETARY RELATIONS (3)

ECO 4723 INTERNATIONAL COMMERCIAL POLICIES (3)
PR: ECO 3101 with a grade of "C" or better. Advanced analysis of international trade theory and commercial policy, international economic integration, and multinational enterprise.

ECO 4905 INDEPENDENT STUDY (1-3)
PR: Cl. Specialized independent study determined by the student’s needs and interests. May be repeated up to 6 credit hours. (S/U only.)

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

ECO 4935 SELECTED TOPICS IN ECONOMICS (1-3)
PR: Cl. Topics to be selected by the instructor or instructors on pertinent economic issues.

ECO 5407 ECONOMIC PROGRAMMING AND CONTROL (3)

ECO 5424 ECONOMETRICS I (3)
PR: ECO 3203 or GEB 6717 and QMB 3200 or GEB 6756, or Cl. Chairperson approval required for undergraduates. Theory and use of multiple regression to estimate relationships in causal models, to analyze economic behavior and to forecast the outcome of economic disturbances. Use of standard software packages. Estimation and interpretation of regression equations.

ECO 5425 ECONOMETRICS II (3)
PR: ECO 5424. Chairperson approval required for undergraduates. Advanced econometric techniques; model building, estimation and forecasting; design and execution of individual research projects.

ECP 3203 LABOR ECONOMICS (3)
PR: ECO 3101 with a grade of "C" or better. An examination of the determinants of wage and employment levels; occupation, industrial and geographical wage differentials, union and public policy effects on labor markets; the economics of discrimination; inflation and unemployment.

ECP 3413 BUSINESS-GOVERNMENT RELATIONSHIPS (3)

ECP 3613 ECONOMICS OF THE URBAN ENVIRONMENT (3)
PR: ECO 2013 and ECO 2023. Economic analysis of the phenomena of cities as well as urban social problems including poverty, discrimination, housing, transportation, pollution, crime and fiscal considerations.

ECP 4232 COLLECTIVE BARGAINING AND PUBLIC POLICY (3)
PR: ECO 2023 or Cl. Administration of labor management agreements, etc. Impact of the government role in collective bargaining and labor relations will be examined in light of current labor laws and judicial interpretations.

ECP 4451 LAW AND ECONOMICS (3)
PR: ECO 3101 with a grade of "C" or better. An advanced analysis of the economic impact in the areas of: Tort, Criminal, Property and Contract Law as well as in the formation and adjudication of law.

ECP 5405 INDUSTRIAL ORGANIZATION (3)
PR: ECO 3101 with a grade of "C" or better or GEB 6716. Chairperson approval required for undergraduates. Application of microeconomic theory to a variety of issues concerning the behavior, performance and regulation of industries. The relationship between the structure of an industry and its performance.

ECP 5406 SEMINAR IN INDUSTRIAL ORGANIZATION (3)
PR: ECP 5405. Chairperson approval required for undergraduates. Contemporary industrial organization problems will be discussed in a seminar format.
FIN 3403 PRINCIPLES OF FINANCE
PR: FIN 3403. An examination of the financial policies of corporations, with special reference to dividend policy, financial structure, capital expenditures, acquisitions, mergers, and reorganization.

FIN 4443 FINANCIAL POLICIES AND STRATEGIES
PR: FIN 4414. A senior seminar for majors in Finance. Primarily a case course examining financial policies and the application of financial analysis to alternative strategies.

FIN 4504 PRINCIPLES OF INVESTMENTS
PR: ECO 2013 and FIN 3403. Survey of the risks and returns of investment media in relation to the investment objectives of individual and institutional investors. Includes an examination of the capital markets, information flows, and analytical techniques in terms of their impact upon the valuation process.

FIN 4514 ADVANCED INVESTMENT ANALYSIS AND MANAGEMENT
PR: FIN 4504. A comprehensive survey of security analysis and portfolio management. The course will utilize a quantitative approach to investment selection and management.

FIN 4905 INDEPENDENT STUDY
PR: CI. Specialized independent study determined by the students' needs and interests. May be repeated up to six credit hours. (S/U only.)

FIN 4915 INDEPENDENT RESEARCH
PR: CI. Individual study subject to instructor and department chairperson. The research project will be mutually determined by the student and instructor. May be repeated up to 6 hours.

FIN 5934 SELECTED TOPICS IN FINANCE
PR: CI. Topics to be selected by instructor and department chairperson on pertinent finance issues.

REE 3043 PRINCIPLES OF REAL ESTATE
Economics of urban land utilization and the nature of property rights. Problems of urban development and the valuation of real property in terms of the structure and operations of the real estate market.

REE 3703 REAL ESTATE LOCATION THEORY AND URBAN DEVELOPMENT

REE 4103 REAL ESTATE APPRAISAL
PR: REE 3043. Comprehensive coverage of the basic concepts and principles of real estate appraisal. Emphasis placed on the use of valuation tools for the appraisal of real estate with emphasis on residential property.

REE 4143 INCOME PROPERTY VALUATION
PR: REE 3043 and FIN 3403. Application of general appraisal methodologies and financial analysis to the valuation of income producing properties. Focus is on the income approach to valuation.

REE 4204 REAL ESTATE FINANCE
PR: REE 3043. A comprehensive analysis of the institutional and legal framework of real estate financing together with an introduction to the financing techniques which are traditionally utilized to finance real estate. Includes methods of raising debt and equity funds. Analysis of real property for financing purposes is stressed in a decision-making context and how that decision affects the real estate investment.

REE 4203 REAL ESTATE INVESTMENT ANALYSIS
PR: REE 3403, REE 3043. 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 or urban development patterns, and the role of taxation will be studied along with the application of analytical techniques for decision making.

REE 4313 REAL ESTATE FEASIBILITY ANALYSIS
PR: REE 3703, REE 4143, and QMB 3200. A comprehensive and in-depth study of the determinants of the market and financial feasibility of the real estate investment decision.

RMI 3011 PRINCIPLES OF INSURANCE
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)
PR: GEB 3121, 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 also include an analysis of cost determination of the various types of coverage.

RMI 4113 CASUALTY INSURANCE (3)
PR: RMI 3011. Course dealing with recognition of personal and business casualty risks and coverages which may be used in dealing with these risks. Considers the underwriting, marketing, and social problems associated with these coverages. Topics include workmen's compensation, public liability, auto liability, suretyship and crime insurances. Not limited to Finance majors.

RMI 4210 PROPERTY INSURANCE (3)
PR: RMI 3011. Course dealing with recognition of personal and business property risks, and coverages which may 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 multiple peril contracts. Not limited to Finance majors.

GENERAL BUSINESS ADMINISTRATION

BUL 3112 LAW AND BUSINESS I (3)
The nature of legal institutions, essentials of binding contract, remedies granted in event of breach of contract, and rights acquired by assignment of contracts.

BUL 3112 LAW AND BUSINESS II (3)
PR: BUL 3112. Legal problems in marketing of goods, nature of property, sales of personal property, securing of credit granted, nature and use of negotiable instruments.

BUL 3850 THE LAW OF BUSINESS ASSOCIATIONS (3)
PR: BUL 3112. A study of the law of corporations, the law of partnerships, and the law of agency.

BUL 4665 LAW AND THE ACCOUNTANT (3)
PR: BUL 3112 or Cl. A comprehensive study of commercial law as it affects the practice of accounting.

GEB 3211 BUSINESS COMMUNICATIONS -SA (3)
Analysis and application of the principles of organizational behavior in letters, memorandums, and reports. Course is structured around a model which manifests the effective communications process.

GEB 4890 BUSINESS POLICY (3)
PR: Senior standing. 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)
PR: Cl. Specialized independent study determined by the student's needs and interests. May be repeated up to eight credit hours. (S/U only.)

GEB 4915 INDEPENDENT RESEARCH (1-4)
PR: Cl. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor. May be repeated up to 8 hours.

GEB 4935 SELECTED TOPICS IN BUSINESS ADMINISTRATION (1-4)
The content and organization of this course will vary according to the current interests of the faculty and needs of students.

MAN 5825 CBA WORKSHOP (1-4)
Professional application workshop in various areas of finance, marketing, economics, accounting, management. May be repeated when subjects differ.

INFORMATION SYSTEMS AND DECISION SCIENCES

CGS 2000 COMPUTERS IN BUSINESS -SA (3)
A study of the use and impact of computers in all areas of business organizations. Course includes hands-on experience and the use of software packages for business analysis.

ISM 3011 MANAGEMENT INFORMATION SYSTEMS (3)
PR: CGS 2000; ACG 2001; ACG 2011 or equivalent. The study of information management, management information requirements and information systems in modern organizations.

ISM 3111 SYSTEMS ANALYSIS (3)
Overview of the system development life cycle. Emphasis on current system documentation through the use of both classical and structured tools/techniques for describing process flows, data flows, data structures, and file designs. Discussion of the information gathering and reporting activities and of the transition from analysis to design.

ISM 3112 SYSTEMS DESIGN (3)
PR: ISM 3111; COP 3120 or equivalent. Advanced study of structured systems design. Emphasis on strategies and techniques of structured analysis and structured design for producing logical methodologies for dealing with complexity in the development of information systems.

ISM 3431 MANAGEMENT SCIENCE PRODUCTION/OPERATIONS MANAGEMENT APPLICATIONS (3)
PR: MAC 2233. Fundamentals of production operations management (POM) and fundamentals of management science (MS). The application of MS models in the solution of POM problems.

ISM 4212 DATABASE ADMINISTRATION (3)

ISM 4220 DISTRIBUTED INFORMATION SYSTEMS (3)
PR: ISM 3111, ISM 3112. Analysis, design, implementation and management of distributed information systems and networks.

ISM 4290 SENIOR SEMINAR IN INFORMATION SYSTEMS (3)
PR: ISM 3111, ISM 3112, ISM 4300. A seminar covering advanced topics in system analysis and design. Applications of these procedures to actual or hypothetical cases.

ISM 4300 MANAGING THE INFORMATION SYSTEM FUNCTION (3)
PR: ISM 3111, MAN 3025; or equivalent. An advanced study of information systems management including system planning, project selection and management, and organizational information management policies.

ISM 4320 INFORMATION SYSTEMS CONTROLS (3)
PR: ISM 3111. MIS Major or Cl. A study of information systems control and its application in system design and system management.

ISM 4400 DECISION SUPPORT SYSTEMS APPLICATIONS-COMPUTER ASSISTED DECISION MAKING (3)
PR: FIN 3403, QMB 2200, and ISM 3111. Study of the principles of decision making of the human/computer alliance. Hands-on computer-assisted-decision making in an organizational environment. Case studies and/or management games using micro-computers.

MAN 4504 OPERATIONS MANAGEMENT: A SYSTEMS APPROACH (3)
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)
PR: MAN 4504 or Cl. 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.

ISM 4905 INDEPENDENT STUDY (1-6)
Independent study as directed by designated faculty. May be repeated up to 6 credit hours. (S/U only)

ISM 4930 SELECTED TOPICS IN MIS (1-9)
Selected topics in MIS.

ISM 4950 INDEPENDENT RESEARCH (1-8)
PR: Cl. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor.
QMB 2150 BUSINESS AND ECONOMIC STATISTICS I-6A (3)
PR: MAC 2233. Description of sample data; calculation of probabilities, frequency functions of random variables, the binomial and normal distributions; sampling theory and estimation; test of hypotheses; elements of Bayesian decision theory.

QMB 3200 BUSINESS AND ECONOMIC STATISTICS II (3)
PR: MAC 2233, QMB 2150. Theory and use of statistical inference. Point and interval estimations; criteria for choosing estimators and decision rules; hypotheses tests; analysis of variance; correlation; multiple regression; and nonparametric methods.

QMB 4600 QUANTITATIVE APPROACH FOR BUSINESS DECISIONS (3)
PR: ISM 3431. The use of systematic approaches and management science tools for decision making and problem solving in an organizational setting. Emphasis is on quantitative approaches for problem identification, analysis, choice and implementation.

QBM 4703 SIMULATION AND MODELING TECHNIQUES (3)
PR: ISM 3431 or CI. A study of manual and computer simulation techniques and their application to problem solving in management (behavioral and quantitative). Knowledge of a computer language and the basic tools and techniques of management science is advised.

MANAGEMENT

MAN 3025 PRINCIPLES OF MANAGEMENT (3)
Study of the fundamentals of management. It treats topics in organizational theory, organizational behavior, and interpersonal relations which are relevant to effective management performance.

MAN 3240 ORGANIZATIONAL BEHAVIOR ANALYSIS (3)
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 PERSONNEL MANAGEMENT (3)
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)
A conceptualization of the administrative problems arising from unionization. Emphasis on the relationship between management and employee representatives in private and public employment.

MAN 4120 MANAGERIAL BEHAVIORAL LABORATORY (3)
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)
PR: MAN 3240. 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 4260 ORGANIZATIONAL DEVELOPMENT AND CHANGE (3)
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)
PR: MAN 3240. The analysis and measurement of factors which influence organizational effectiveness and the quality of work life. Data based cases will be used by students to assess managerial and supervisory skills and to measure organizational functioning and work design.

MAN 4402 EMPLOYMENT LAWS (3)
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)
Case studies in contract negotiation, administration, grievance settlement, and arbitration. Assumes familiarity with industrial relations system.

MAN 4802 ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT (3)
PR: ACC 2001, ACC 2021, 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, startup of business, successful management of the firm, and options for succession or termination.

MAN 4804 SMALL BUSINESS MANAGEMENT COUNSELING (3)
PR: MAN 4802 or CI. Field application in small business settings by (a) analyzing an on-going small business and developing recommendations for making improvements; or (b) conducting a feasibility study for a new enterprise and developing a strategy for implementation if favorable.

MAN 4905 INDEPENDENT STUDY (1-3)
PR: CI. Specialized independent study determined by the students needs and interests. May be repeated up to 8 credit hours. (S/U only.)

MAN 4930 SELECTED TOPICS IN MANAGEMENT (1-3)
PR: CI. Topics to be selected by instructor and department chairperson for pertinent Management issues.

MAN 4931 INDEPENDENT RESEARCH (1-4)
PR: CI. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor. May be repeated up to 8 hours.

MAN 5714 URBAN MANAGEMENT (3)
The applicability of business management theories and practices to problem solving in the public sector. A formal theory of organization is used to compare and contrast private and public sector decision environments.

MAN 5806 ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT COUNSELING (3)
Small business management consulting in an on-going firm. Field application of various aspects of business administration in analyzing strengths and weaknesses, development of recommendations for improvement, and initiation of steps to assist business principals in evaluation and implementation. Emphasis on developing management consulting skills and recognizing implications of small business owner-manager's capabilities and attitudes for success in implementing recommendations.

MARKETING

MAR 2931 SELECTED TOPICS IN MARKETING (1-4)
PR: CI. Topics to be selected by department chairman. May be repeated if topics vary. Not available for credit to upper-level students who have been admitted to the College of Business Administration. May be repeated up to 8 credit hours.

MAR 3023 BASIC MARKETING (3)
PR: AGC 2001, ECO 2013, ECO 2023, or CI. Survey of the marketing of goods and services within the economy. Attention is paid to the impact of marketing on other functional areas of business as well as society.

MAR 3103 PROFESSIONAL SELLING (3)
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)
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)
PR: MAR 3023. An applications oriented study of the marketing function at an intermediate level. Emphasis upon techniques for analysis and problem-solving. This course 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)
PR: MAR 3023. A study of the 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 4203 CHANNELS MANAGEMENT (3)
PR: MAR 3023. A detailed study of marketing channels as a functional area of marketing management responsibility and as a part of marketing strategy. Attention is given to wholesaling and retailing and their structural, dynamic interrelationships including distribution logistics.

MAR 4213 LOGISTICS AND PHYSICAL DISTRIBUTION MANAGEMENT (3)
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)
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)
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. The decision making process in development of a promotional program is emphasized.

MAR 4403 SALES MANAGEMENT (3)
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 INDUSTRIAL MARKETING (3)
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)
PR: MAR 3023. A study of the basic concepts of buyer behavior, including pre- and post-purchase attitudes and behavior patterns, information processing relating to the functional areas of marketing and the buyer's decision-making process. Managerial applications to marketing are emphasized.

MAR 4824 MARKETING MANAGEMENT PROBLEMS (3)
PR: Senior Standing, MAR 3823, MAR 3613, and two other 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)
PR: CI. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor. May be repeated up to 6 credit hours.

MAR 4905 INDEPENDENT STUDY (1-3)
PR: CI. Specialized independent study determined by the students' needs and interests. May be repeated up to 6 credit hours. (S/U only.)

MAR 4933 SELECTED TOPICS IN MARKETING (1-3)
PR: CI. Topics to be selected by instructor and department chairperson.
COLLEGE OF EDUCATION

ADULT AND VOCATIONAL EDUCATION
Chairperson: W.E. Blank; Professor: F. F. Johnson; Associate Professors: W. E. Blank, C. H. Collier, R. Hill, W. B. James, G. P. Patterson, C. Welter; Assistant Professor: D. B. Briscoe; Visiting Assistant Professors: M. Gazvoda, R. Hicks; Visiting Instructors: P. Ebbe, E. Gallagher, S. Gentry, J. Gresham, J. Scaglione; Other Faculty: S. Casper, K. Childress, M. Paul, S. Stokes.

CHILDHOOD/LANGUAGE ARTS/READING EDUCATION

COUNSELOR EDUCATION
Chairperson: T.B.A.; Professors: V. J. Drapela, D. G. Ferguson, E. E. Panther; Associate Professor: C. M. Story; Assistant Professors: D. J. Anderson, S. Street.

EDUCATIONAL LEADERSHIP

EDUCATIONAL MEASUREMENT AND RESEARCH

INSTRUCTIONAL COMPUTING
Chairperson: A. Troutman; Professors: C. W. Engel, A. Troutman; Associate Professor: F. D. Breit; Assistant Professor: J. A. White.

PHYSICAL EDUCATION

PSYCHOLOGICAL AND SOCIAL FOUNDATIONS

SCHOOL OF LIBRARY AND INFORMATION SCIENCE

SECONDARY EDUCATION

SPECIAL EDUCATION
Chairperson: J. Paul; Professors: L. Bowers, H. F. Boyd, R. C. Dwyer, E. Guetzloe, S. Klesius, C. D. Lavelle, B. Lax, A. J. Mauser, S. P. Singh; Research Professor Emeritus: G. O. Johnson; Associate Professors: R. Cline, J. A. Merica, H. A. Sproles; Visiting Faculty Professors: J. Barnard, J. Platt, S. Richardson; Assistant Professors: A. Cranston-Gingras, B. Epanchin, D. Harris, H. Roselli, D. Thomas; Other Faculty: M. Gazvoda; Courtesy Faculty: W. Rhodes.

ADULT EDUCATION
ARE 4384 WORKING WITH THE ADULT LEARNER:
ADULT EDUCATION (3)
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.

ART EDUCATION
ARE 3044 EXPERIENTIAL BASIS OF ARTISTIC MIND (3)
PR: Admission to College of Education. Designed to help the individual student discover and develop meanings and values in art and education with emphasis on communicative skills, both verbal and visual. Focus will be on the individual and potential alternatives in the teaching of art.

ARE 3354 ART TEACHING STRATEGIES I (3)
PR: Admission to College of Education and 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 young people, three to eighteen.

ARE 4112 EDUCATION THROUGH CRAFTS (3)
An in-depth study of arts and craft media for children. Emphasis will be placed on innovative use of new materials.

ARE 4260 SEMINAR IN ART EDUCATION CLASSROOM MANAGEMENT (1)
PR: Admission to College of Education and ARE 3044. The concepts and areas of skill essential to successful practice in art education management. To include understanding of how art programs are funded, art facility planning, art curriculum development, art exhibition techniques, public relations promotion and supply and equipment requirements.

ARE 4440 ART TEACHING STRATEGIES II (3)
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)
PR: Admission to College of Education and ARE 3044. The study of processes and media involved in the expression of individual ideas through crafts. Emphasis placed on crafts in a contemporary society with skills in metals, weaving, fibers, and ceramics and their application in a public school curriculum.
BTE 4936 METHOD A TEACHING: BUSINESS EDUCATION (4)
PR: Successful completion of BE competencies, or Cl. Methods, techniques and materials for instruction.

BTE 4936 SPECIAL TEACHING METHODS: BUSINESS EDUCATION (4)
PR: Successful completion of BE competencies, or Cl. Methods, techniques, and materials for skill development.

BTE 4905 INDEPENDENT STUDY: BUSINESS EDUCATION (1-4)
PR: Cl. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

BTE 4909 DIRECTED STUDY: BUSINESS EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

BTE 4936 SENIOR SEMINAR IN BUSINESS AND OFFICE EDUCATION (2)

BTE 4940 INTERNSHIP: BUSINESS EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Seminar in Business Education concurrently. 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. (S/U only.)

BTE 4946 FIELD-BASED SEMINAR IN BUSINESS EDUCATION (3)
Supervised field experience and orientation to broad field business education. Specifically designed to be preparatory for the internship. (S/U only.)

BTE 5171 CURRICULUM CONSTRUCTION: BUSINESS EDUCATION (3)
Curriculum scope, the process of planning and organizing instructional programs with emphasis in task analysis and process evaluation.

BTE 5245 PROGRAM MANAGEMENT: BUSINESS EDUCATION (3)
Organization, coordination, and budgeting of adult, cooperative, and special programs.

OST 3324 BUSINESS AND OFFICE MACHINES (3)
Instruction and practice on selected business and office machines to solve business mathematics problems.

OST 3404 ADMINISTRATIVE OFFICE MANAGEMENT (3)
Functions of the business office to include systems and procedures, communications, records, management, office employee behavior, controlling the work of the office, and principles of office organization.

OST 3711 OFFICE INFORMATION PROCESSING (3)
Application of concepts and technology of information processing to office operations. Review of the grammar, punctuation, and transcription skills needed for editing in word processing operations. Available to majors and nonmajors.

OST 3712 OFFICE INFORMATION PROCESSING II (1-3)
PR: OST 3711. Programming word and information processing equipment; special applications of word and information processing functions to solve field-based problems. Available to majors; or others only with Cl.

OST 4402 OFFICE OCCUPATIONS PROCEDURES (3)
PR: Successful completion of all basic competency exams required by the program area, or consent of program coordinator. This course is designed to integrate learnings from preceding business and office education courses.

COMPUTERS IN EDUCATION

EME 4402 INTRODUCTION TO COMPUTERS IN EDUCATION (2)
Introduction to microcomputer technology and its function in the classroom to augment the teaching and learning processes. Topics include the critical evaluation of educational software; conceptualizing uses of computers in the classroom in terms of computer-directed instruction, computer-enhanced instruction, and computer-managed instruction; understanding hardware; using and applying commercial courseware, general applications software (word processors, database managers, etc.), programming languages (Logo and BASIC), and disk operating systems.

EME 5403 MICROCOMPUTERS IN EDUCATION:
ELEMENTARY AND SECONDARY METHODS (2-4)
Methods and applications of computers in education. Topics include: computer literacy, computer history, impact of computer technology on society and careers, current trends and issues in computer education, and instructional pedagogy in computer science education.

COUNSELOR EDUCATION

EGC 4001 INTRODUCTION TO GUIDANCE PROCESSES (3)
PR: Upper level standing. An introduction to the role and function of guidance, school psychology, social work and other pupil personnel services. Opportunities for increasing self awareness.

EGC 4053 INTRODUCTION TO STUDENT PERSONNEL WORK IN HIGHER EDUCATION (2)
PR: Cl. 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.
COLLEGE OF EDUCATION

EGC 4905 INDEPENDENT STUDY: GUIDANCE AND COUNSELING EDUCATION (1-4)
PR: CL. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

EGC 5101 HUMAN RELATIONS SKILLS IN GUIDANCE (4)
PR: EGC 4001 or CL. Introduction to the theory of human relations dynamics and development of skills required for effective interpersonal relations. Lecture sessions and laboratory training.

SLS 1101 THE UNIVERSITY EXPERIENCE (2)
An extended introduction and orientation to USF. Topics include purposes of higher education, structure and function of USF, overview of the processes of career planning and selecting a major, study skills, and managing out-of-class time.

SLS 2401 CAREER DEVELOPMENT PROCESS (2)
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.

CURRICULUM AND INSTRUCTION

EDG 1300 INTRODUCTION TO TEACHING (3)
PR: Freshman only or CL. The people with whom teachers work, the types of tasks they perform and the challenges they can anticipate. Observation of teaching at several grade levels.

EDG 4620 CURRICULUM AND INSTRUCTION (3)
An introduction to the field of curriculum and instruction. Emphasis is placed on identifying educational goals and objectives and applying instructional principles.

DISTRIBUTIVE AND MARKETING EDUCATION

DEC 4174 PROGRAM MANAGEMENT OF DISTRIBUTIVE AND MARKETING EDUCATION (3)
The study of the purposes, processes, organization, planning, directing, coordinating and evaluation of Distributive and Marketing Education Cooperative Programs.

DEC 4382 SPECIAL TEACHING METHODS: DISTRIBUTIVE EDUCATION (4)
Methods, techniques, and materials for skill development.

DEC 4382 METHODS OF TEACHING: DISTRIBUTIVE EDUCATION (3)
Methods, techniques, and materials for instruction.

DEC 4905 INDEPENDENT STUDY: DISTRIBUTIVE AND MARKETING EDUCATION (1-4)
PR: CL. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

DEC 4909 DIRECTED STUDY: DISTRIBUTIVE AND MARKETING EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

DEC 4936 SENIOR SEMINAR IN DISTRIBUTIVE AND MARKETING EDUCATION (2)

DEC 4940 INTERNSHIP: DISTRIBUTIVE AND MARKETING EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Distributive and Marketing Education concurrently. In special programs where the internship experience is distributed over two or more semesters students will be registered for credit which accumulates from 9 to 12 semester hours. (S/U only.)

DEC 4941 SUPERVISED FIELD EXPERIENCE: DISTRIBUTIVE EDUCATION (1-6)
PR: CL. Planned supervised functions in the area of specialization and coordinated with selected schools, government offices, social agencies, businesses and industries on site.

DEC 5175 PROGRAM MANAGEMENT: DISTRIBUTIVE EDUCATION (3)
Organization, coordination, and budgeting of adult, cooperative, and special programs.

ELEMENTARY EDUCATION

ARE 4313 ART FOR THE CHILD AND YOU (3)
PR: Admission to College of Education. Art and the intellectual, creative, emotional, and aesthetic growth of children.

EDE 4301 TEACHING METHODS IN THE ELEMENTARY SCHOOL (4)
PR: EDE 4941 and EDE 4620. Techniques and strategies appropriate to instruction of children in educational settings.

EDE 4905 INDEPENDENT STUDY: ELEMENTARY EDUCATION (1-4)
PR: CL. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

EDE 4909 DIRECTED STUDY: ELEMENTARY EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

EDE 4936 SENIOR SEMINAR IN ELEMENTARY EDUCATION (2)

EDE 4940 INTERNSHIP: ELEMENTARY EDUCATION (10)
PR: EDE 4941 and EDE 4942. Teacher candidate is required to demonstrate professional competencies during one semester of full-time internship in a public or private elementary school. Concurrent enrollment in EDE 4936. (S/U only.)

EDE 4941 CHILDHOOD EDUCATION INTERNSHIP LEVEL I (4)
PR: Admission to the Elementary or Elementary/Early Childhood programs. Students spend six hours per week in a supervised in-school experience and attend weekly seminar. Concurrent enrollment in EDE 4620-Elementary section. (S/U only.)

EDE 4942 CHILDHOOD EDUCATION INTERNSHIP LEVEL II (6)
PR: EDE 4941. Students spend 12 hours per week in a supervised internship experience in classroom settings and attend a weekly seminar.

ECC 2000 INTRODUCTION TO EARLY CHILDHOOD EDUCATION (3)
An overview of early childhood education with emphasis on its historical development, current theories, and practices.

ECC 4203 PROGRAMS IN EARLY CHILDHOOD EDUCATION (4)
PR: Admission to College of Education. A study of school programs for children age 3-8. Analysis and evaluation of these programs in the light of the most effective current classroom practices. Observation and participation included.

ECC 4303 CREATIVE EXPERIENCES IN EARLY CHILDHOOD EDUCATION (3)
PR: Admission to College of Education. The development of the child's creative expression through art, music, dance, play, and drama; included are the materials, content, and teaching techniques.

ECC 4706 LANGUAGE AND LEARNING IN EARLY CHILDHOOD (3)
PR: Admission to College of Education. The study of the acquisition of language in young children and the development of basic communications skills in the Language Arts Curriculum, infancy through age 8 years.

ECC 4905 INDEPENDENT STUDY: ELEMENTARY EARLY CHILDHOOD EDUCATION (1-4)
PR: CL. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

ECC 4909 DIRECTED STUDY: ELEMENTARY EARLY CHILDHOOD EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

ECC 4936 SENIOR SEMINAR IN ELEMENTARY EARLY CHILDHOOD EDUCATION (2)
EEC 4940 INTERNSHIP: ELEMENTARY/ ELEMENTARY-
EARLY CHILDHOOD  (10)
Teacher candidate is required to demonstrate professional compen-
tacies during one semester of full-day internship in a public or
private elementary school. Concurrent enrollment in EEC 4936. (S/U
only.)

HLP 4460 HEALTH AND PHYSICAL EDUCATION FOR
THE CHILD  (3)
PR: Admission to the College of Education. A study of the import-
ance of movement competency and its contribution to the develop-
ment of a positive self-concept in children; content and methodol-
gy for developing appropriate movement experiences for children;
content and methodology for teaching elementary health science.

LAE 4314 LANGUAGE ARTS IN CHILDHOOD EDUCATION  (3)
PR: Admission to the College of Education. The exploration of the
content, organization and instruction of oral communication and
written expression in Childhood Education.

LAE 4414 LITERATURE IN CHILDHOOD EDUCATION  (3)
PR: Admission to College of Education. The selection, evaluation
and use of fiction, nonfiction and poetry for instructional, informa-
tional, and recreational purposes in Childhood Education.

MAE 4310 TEACHING ELEMENTARY SCHOOL MATHEMATICS I  (3)
PR: Admission to College of Education and two college level
mathematics courses. Methods for teaching number ideas, compu-
tation skills, and mathematical reasoning.

MAE 4328 TEACHING ELEMENTARY SCHOOL
MATHEMATICS II  (2)
PR: MAE 4310. Methods for teaching informal geometry, measure-
ment, probability and statistics.

MAE 4510 DIAGNOSIS AND TREATMENT OF LEARNING
DISABILITIES IN SCHOOL MATHEMATICS  (3)
PR: MAE 4310 or equivalent. Presentation and analysis of teaching
methods and models appropriate for use with students experienc-
ing learning disabilities in mathematics; supervised conduct of a
case study.

MUE 4210 MUSIC FOR THE CHILD  (3)
PR: Admission to College of Education. Music fundamentals, the
development of music skills and knowledge of music materials and
teaching strategies for presenting music to children in the elemen-
tary school.

RED 4310 READING FOR THE CHILD  (3)
PR: Admission to College of Education. Prereading, word recogni-
tion, comprehension and basic study skills and various reading
approaches and reading interests.

SEF 4310 TEACHING ELEMENTARY SCHOOL SCIENCE  (3)
PR: Admission to College of Education and completion of General
Distribution Requirements in the Natural Science area. Techniques
and materials for teaching science in the elementary school.

SSE 4313 TEACHING ELEMENTARY SCHOOL SOCIAL STUDIES  (3)
PR: Admission to College of Education or CI. Methods of planning
and teaching subjects related to the study of people and their
relationships with other people and their environment.

ENGLISH EDUCATION

LAE 4335 METHODS OF TEACHING ENGLISH LITERATURE
AND READING  (3)
PR or CR: EDG 4620. A survey of materials available to adolescent
readers plus an overview of organizational strategies for teaching
literature and reading.

LAE 4530 READING SKILLS IN ENGLISH EDUCATION  (2)
PR: RED 4360 or CC. Methods of dealing with reading problems and
application of general reading concepts in English Education. (S/U
only.)

LAE 4642 CURRENT TEACHING OF ENGLISH LANGUAGE
AND MEDIA  (3)
CR: EDG 4620 and LAE 4335. Methods of teaching language and
media. Includes current findings on teaching usage, dialect, gram-
mar, and semantics, as well as approaches to media in English.

LAE 4905 INDEPENDENT STUDY: ENGLISH EDUCATION  (1-4)
PR: CI. Specialized independent study determined by the student's
needs and interests. May be repeated when subjects vary. (S/U
only.)

LAE 4909 DIRECTED STUDY: ENGLISH EDUCATION  (1-3)
PR: Senior standing. To extend competency in teaching field.
Offered only as a scheduled class.

LAE 4936 SENIOR SEMINAR IN ENGLISH EDUCATION  (2)
PR: Senior standing. Synthesis of teacher candidate's courses in
complete college program. Required concurrently with internship.

LAE 4940 INTERNSHIP: ENGLISH EDUCATION  (1-12)
One full semester of internship in a public or private school. Intern
takes Senior Seminar in Education concurrently. In special pro-
grams 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. (S/U only.)

LAE 5932 SELECTED TOPICS IN THE TEACHING OF ENGLISH  (3)
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.

FOREIGN LANGUAGE EDUCATION

FLE 4333 FOREIGN LANGUAGE TEACHING IN THE
SECONDARY SCHOOL  (3)
PR: EDG 4620 or concurrent registration. An examination of the
nature of language and language learning. Review of the history of
foreign language teaching in the United States and an examination
of the methods of language teaching. Study of and practice in the
sequence of current foreign language instructional processes and
examination of the objectives of that instruction. Library research in
foreign language teaching practices in secondary schools.

FLE 4334 PRACTICUM IN FOREIGN LANGUAGE TEACHING
IN THE SECONDARY SCHOOL  (3)
PR: FLE 4333. Research on available literature in the field of foreign
language education and the psychology of language learning.
Examination of the interdependence of language, culture, and
graphy. Extended study and practice of the sequential steps of
foreign language teaching with emphasis on the audio-lingual
approach.

FLE 4936 SENIOR SEMINAR IN FOREIGN LANGUAGE
EDUCATION  (2)
PR: Senior standing. Synthesis of teacher candidate's courses in
complete college program. Required concurrently with internship.

FLE 4940 INTERNSHIP: FOREIGN LANGUAGE EDUCATION  (1-12)
One full semester of internship in a public or private school. Intern
takes Senior Seminar in Education concurrently. In special pro-
grams 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. (S/U only.)

FOUNDATIONS EDUCATION

EDF 3122 LEARNING AND THE DEVELOPING CHILD  (4)
PR: A general Psychology and admission to College of Education.
Preadolescent child growth and development, learning theory, and
behavioral analysis applied to instruction and to the organization
and management of classroom.

EDF 3214 HUMAN DEVELOPMENT AND LEARNING  (3)
PR: A general Psychology and admission to College of Education.
Application of respondent and operant learning principles to class-
room learning, teaching models for different instructional goals,
analysis of teacher behavior, micro-teaching.

EDF 3228 BEHAVIOR MODIFICATION TECHNIQUES  (4)
PR: EDF 3214. Special techniques in behavior modification for
children with learning difficulties. Minimum of two hours field expe-
rience per week required in addition to regular class hours.
relationship of a job to a man's life style, and the concept of education as a lifelong process.

EVT 4062C (formerly EVT 4061C) TEACHING IN
INDUSTRIAL-TECHNICAL EDUCATION
(1-3)
An overview of the ITE instructor's roles and responsibilities concerning students, the school and the community and a look at the organization of vocational education, liability, and professionalism.

EVT 4065 HISTORY AND PRINCIPLES OF VOCATIONAL EDUCATION
(4)
An overview of current policies and principles in vocational education including their historical, sociological, and philosophical bases. Open to majors and non-majors.

EVT 4084C PROFESSIONAL DEVELOPMENT IN
INDUSTRIAL TECHNICAL EDUCATION
(1-3)
Designed for the ITE teacher in forming plans of professional development. Competencies include the development of a personal education philosophy; attributes in creating harmonious school community relationships; and desirable staff and teacher associations.

EVT 4115 (formerly EVT 4179) CURRICULUM CONSTRUCTION:
INDUSTRIAL-TECHNICAL EDUCATION
(4)
An overview of instructional and psychological principles with application to curriculum construction in vocational education. Open to majors and non-majors.

EVT 4263 ORGANIZATION AND ADMINISTRATION OF
STUDENT VOCATIONAL ORGANIZATIONS
(1-4)
Includes the organization and administration of the local student vocational organization in industrial, health occupations, business and distributive education.

EVT 4312 (formerly EVT 4311) TEACHING METHODS:
HEALTH OCCUPATIONS
(4)
Pr: EVT 4360 or Cl. Equips health occupations instructors with professional competencies for classroom and laboratory settings. Open to majors and non-majors.

EVT 4367 ASSESSING STUDENT SKILL IN INDUSTRIAL
TECHNICAL EDUCATION
(4)
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 4540 READING SKILLS IN ADULT AND VOCATIONAL
EDUCATION
(2)
Pr: RED 4360, or CR in RED 4360. Students will study reading and communication skills as they relate to their particular content areas in adult and Vocational Technical Education. This course, along with RED 4360, satisfies State certification requirement pertaining to secondary reading.

EVT 4562 VOCATIONAL EDUCATION FOR SPECIAL NEEDS
STUDENTS
(4)
Pr: EVT 4365. 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 4915 FACILITY DESIGN AND MANAGEMENT
(3)
Design and develop instructional facility floor plans consistent with modern and efficient methods of instruction as well as evaluate existing classrooms, laboratories, and shops. Selection and location of equipment. Review and prepare operational plans for the management of equipment, furniture, tools, and supplies as they
COLLEGE OF EDUCATION

relate to effective student learning.

EVT 4905 INDEPENDENT STUDY: INDUSTRIAL-TECHNICAL EDUCATION (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

EVT 4909 DIRECTED STUDY: INDUSTRIAL-TECHNICAL EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

EVT 4936 SENIOR SEMINAR IN MATHEMATICS EDUCATION (2)

EVT 4940 INTERNSHIP: MATHEMATICS EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Education concurrently. 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. (S/U only.)

MEASUREMENT AND RESEARCH

EDF 4430 MEASUREMENT FOR TEACHERS (3)

PHYSICAL EDUCATION-ELECTIVE

HLP 3081 PERSONAL WELLNESS: A LIFETIME COMMITMENT (3)
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.

PEL 1121 GOLF I (2)
Introductory experience in the sport of golf. Fundamental skills, information, strategy, and participation. (S/U only.)

PEL 1341 TENNIS I (2)
Introductory experiences in the sport of tennis. Basic skills, playing strategies, lecture, demonstration, and participation. (S/U only.)

PEL 1346 BADMINTON (2)
Progressive experiences in badminton, fundamental skills, strategy, information and participation. (S/U only.)

PEL 2122 GOLF II (2)
Continuation of PEL 1121. Emphasis on course play and refinement of strokes. (S/U only.)

PEL 2321 VOLLEYBALL (2)
Review and refinement of fundamental skills, presentation and practice of the various offensive strategies. (S/U only.)

PEL 2342 TENNIS II (2)
Continuation of PEL 1341. Refinement of basic skills, supplementary strokes, greater emphasis on tactics and playing strategies. (S/U only.)

PEL 2441 RACKETBALL (2)
Development and refinement of the skills and strategies of Racquetball with opportunity for competition and tournament play. (S/U only.)

PEL 2621 BASKETBALL (2)
Review and refinement of fundamental skills, presentation and practice of the various offensive and defensive strategies. (S/U only.)

PEM 1201 GYMNASTICS I (2)
Introductory experiences in the various gymnastics events. Opportunities to specialize in areas of personal interests. (S/U only.)

PEM 1461 FOIL FENCING (2)
Progressive experiences in the sport of Foil Fencing, fundamental skills, strategy, information, and participation. (S/U only.)

PEM 2116 FIGURE DEVELOPMENT (2)
Varied activities designed to effect changes in body configuration and functional ability. (S/U only.)

PEM 2131 WEIGHT TRAINING (2)
Knowledge and techniques necessary for increasing muscle function. Assessment of status and development of a personal program. (S/U only.)

PEM 2141 AEROBICS (2)
Introduction to the knowledge and techniques necessary for increasing cardiorespiratory efficiency. Assessment of status and development of a personal program. (S/U only.)

PEM 2202 GYMNASTICS II (2)
Continuation of PEM 1201. Extended opportunities to master the
various gymnastics events. Competition and individual routines. (S/U only.)

PET 2376 BACKPACKING (2)
Introductory experiences designed to develop the physical skills and the mental attitude necessary to travel safely, efficiently, and considerably in the wilderness setting. (S/U only.)

PET 2441 KARATE (2)
Introductory experiences in the sport of Karate. Fundamental skills, strategy, information, and participation. (S/U only.)

PET 2930 SELECTED ACTIVITIES (1-2)
Activities offered are selected to reflect student need and faculty interest. May be repeated up to 6 credit hours. (S/U only.)

PET 1121 SWIMMING I (2)
Development and refinement of the essential skills and information necessary for enjoying swimming. Emphasis on personal safety. (S/U only.)

PET 2113 LIFESAVING (2)
PR: PEN 2172 or equivalent. Development of the essential skills and knowledge necessary for enjoying swimming. Emphasis on personal safety. (S/U only.)

PET 2172 SWIMMING II (2)
PR: PEN 1121 or equivalent. Continuation of PEN 1121. Special emphasis on development of endurance and efficient stroking. (S/U only.)

PET 2336 SKIN & SCUBA DIVING (2)
PR: PEN 2172 or equivalent. Development of the essential skills and knowledge necessary for enjoying the sport of Skin & Scuba Diving. Correct utilization and care of equipment; emphasis on personal safety. (S/U only.)

PET 3115 WATER SAFETY INSTRUCTION (2)
PR: PEN 2113. Examination of the various swimming strokes leading to identification of appropriate methods and techniques for instructing others. ARC certification offered. (S/U only.)

PET 2330C HUMAN KINESIOLOGY I (2)
An introduction to the structure and function of the skeletal and neuromuscular systems in reference to their support of vigorous human movement. (S/U only.)

PET 2332 INTRODUCTION TO EXERCISE THEORY (2)
An introduction to the basic principles underlying exercise techniques for improving cardiovascular endurance, strength, flexibility, and weight control. Examination and critique of popular fitness programs, fads and fallacies.

PET 3931 SELECTED TOPICS (1-3)
Topics offered are selected to reflect student need and faculty interest. May be repeated up to 9 credit hours.

PROFESSIONAL PHYSICAL EDUCATION

HSC 2400 FIRST AID (2)
Meets the American Red Cross certification requirements in standard and advanced first aid.

PET 4941 WELLNESS INTERNSHIP (15)
PR: CC. Completion of all curriculum requirements. Supervised performance in the development, performance, and evaluation of programs. Full semester on-site. Open to Wellness Leadership Physical Education Majors only. (S/U only.)

PET 3101 AQUATICS (2)
PR: Red Cross beginning swimmer’s skills or equivalent. Includes analysis of swimming skills, teaching methodology, conducting class activities, and organizing and conducting aquatic programs.

PET 3170 AQUATIC EXERCISE (2)
PR: CC. An instructor training course in aquatic exercise. Focuses on teaching aerobic, strength, flexibility, and weight control exercises performed in swimming pools. Open to non-majors.

PET 2000 INTRODUCTION TO PHYSICAL EDUCATION IN TODAY'S SOCIETY (3)
PR: CI. An overview of the field of physical education, including the role of the physical education teacher and non-teaching career options. The role of play, sport, and physical education in today’s society is emphasized and the competencies necessary to careers in physical education. (S/U only.)

PET 3012 PERSONAL/PROFESSIONAL DEVELOPMENT SEMINAR (3)
PR: CC. Identification of personal and professional knowledge, skills, and attitudes necessary for successful professional practice of physical educators. Introduction to career opportunities and the historical, philosophical, and sociological foundations of the profession. Development of a personal-professional development plan. Field work required. Majors only.

PET 3031 MOTOR DEVELOPMENT AND ASSESSMENT (3)
PR: CC. Study of the assessment, evaluation and motor development performance of children and adolescents and application of principles of motor skills acquisition in physical education instruction. Open to non-majors.

PET 3080 SURVEY OF WELLNESS PROGRAM (3)
PR: CC. An analysis of various types of wellness programs in the public and private sector including community-based programs, commercial health and fitness enterprises, government-based programs, corporate-based programs, and hospital health and fitness centers.

PET 3310 KINESIOLOGY (3)
PR: CC. A study of the structure and function of the skeletal and muscular systems and of mechanical principles related to psychomotor performance. Open to non-majors.

PET 3351 EXERCISE PHYSIOLOGY I (3)
PR: CC. A study of the effects of physical activity on the body. Topics include acute and chronic adaptation of the cardiovascular, muscular, metabolic, hormonal, and energy systems to exercise. Open to non-majors.

PET 3421 CURRICULUM AND INSTRUCTION IN PHYSICAL EDUCATION (3)
PR: CC. Development of knowledge and skills related to the instruction process of physical education. Preparation of materials and planning instruction.

PET 3422 INSTRUCTIONAL DESIGN AND CONTENT: MOVEMENT EXPERIENCES (3)
PR: CC. This course develops a variety of motor skills and includes the study of systems for analyzing movement. It prepares students to plan and conduct movement experiences in a wide variety of educational settings.

PET 3441 INSTRUCTIONAL DESIGN AND CONTENT: MIDDLE SCHOOL PHYSICAL EDUCATION (3)
PR: CC. The development of physical education content and instructional practices for middle school students. The focus is upon matching appropriate content and learning experiences to the unique needs of the pre- and early adolescent learner.

PET 3640 ADAPTED PHYSICAL EDUCATION (3)
PR: CC. A study of characteristics, programming needs and teaching of physical education for handicapped students.

PET 3799 CAREER DECISION-MAKING AND PROFESSIONAL ETHICS (1)
PR: CC. Teacher certification career decision-making activities. Monitor and continue personal-professional development plan developed in previous semester. Ethical practices for teachers. Taken concurrently with PET 3943.

PET 3943 PHYSICAL EDUCATION INTERNSHIP: MIDDLE SCHOOL (4)
PR: CC. A part-time internship in middle school physical education. Focus on the relationship of physical education to the needs of the pre- and early adolescent learner, the organization and purpose of the middle school, and application appropriate content and methodologies.

PET 4141 TRENDS AND TASKS - ELEMENTARY PHYSICAL EDUCATION (1)
PR: CC. 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 seminars. Taken concurrently with Physical Education Internship: Elementary. Physical Education Majors only.
PET 4142 TRENDS AND TASKS - SECONDARY
PHYSICAL EDUCATION (1)
PR: CC. Current trends are evaluated from a historical and philosophic perspective. Non-teaching tasks are identified as part of the professional role. Evaluate and continue personal-professional development plan developed in previous semesters. Taken concurrently with Physical Education Internship: Secondary. Physical Education Majors only.

PET 4304 PRINCIPLES AND ISSUES IN COACHING (3)
The application of principles from philosophy, psychology, sociology, and physiology to competitive athletics and coaching.

PET 4353 EXERCISE PHYSIOLOGY II (3)
PR: CC. & PET 3352. A study of Exercise Physiology focusing on the adult. Includes specific populations such as the obese, heart patients, arthritics, elderly, and high performance athletes. Open to non-majors.

PET 4364 HEALTH-FITNESS APPRAISAL & EXERCISE PRESCRIPTION (3)
PR: CC. & PET 3352. Techniques in conducting health-fitness test and exercise prescription for adults. Includes cardiovascular strength, flexibility, body composition, health risk testing, exercise prescribing, and monitoring. Open to non-majors.

PET 4401 ORGANIZATION & ADMINISTRATION OF SECONDARY PHYSICAL EDUCATION PROGRAMS (3)
PR: CC. A study of organizational and administrative procedures for secondary school physical education programs. Includes scheduling, budget, facilities, extra-curricular programs, and the selection and supervision of staff.

PET 4404 ORGANIZATION & ADMINISTRATION OF WELLNESS PROGRAMS (3)
PR: CC. Design and implementation of various types of wellness programs with emphasis on assessment and evaluation management, staffing, participant adherence, program design, budgeting and marketing.

PET 4432 INSTRUCTIONAL DESIGN AND CONTENT: PHYSICAL EDUCATION ELEMENTARY (3)
PR: CC. 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)
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)
PR: CC. 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)
PR: CC. In this course, students are prepared to plan, conduct, and evaluate complex movement experiences in games, dance, gymnastics and physical fitness appropriate for students K-6.

PET 4622 CARE AND PREVENTION OF PHYSICAL INJURIES (2)
Principles and techniques of conditioning athletes for competition; prevention and care of injuries in physical education and athletic activities.

PET 4905 INDEPENDENT STUDY: PROFESSIONAL PHYSICAL EDUCATION (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

PET 4933 SENIOR SEMINAR IN SECONDARY PHYSICAL EDUCATION (3)
PR: CC. Synthesis of teacher candidate's courses in complete college program. Reflective evaluation of teaching experience. Required concurrently with Associate Teaching in Physical Educa-

PET 4934 SENIOR SEMINAR IN ELEMENTARY PHYSICAL EDUCATION (3)
PR: CC. Synthesis of teacher candidate's course in complete college program. Reflective evaluation of teaching experience. Required concurrently with Associate Teaching in Physical Education: Elementary. Physical Education Majors only.

PET 4942 PHYSICAL EDUCATION INTERNSHIP: ELEMENTARY (4)
PR: CC. A part-time internship in elementary school physical education. Focus on the nature of the total elementary school curriculum, characteristics of students, and application of appropriate content and instructional competencies. (S/U only.)

PET 4944 PHYSICAL EDUCATION INTERNSHIP: SECONDARY (4)
PR: CC. 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. (S/U only.)

PET 4946 ASSOCIATE TEACHING PHYSICAL EDUCATION: ELEMENTARY (12)
PR: CC. A full-time internship in the elementary school in which the student undertakes the full range of teaching responsibilities in elementary physical education. May not be repeated. (S/U only.)

PET 4947 ASSOCIATE TEACHING PHYSICAL EDUCATION: SECONDARY (12)
PR: CC. 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. (S/U only.)

PET 4947 ATHLETIC TRAINING PRACTICUM (2)
PR: PET 4622. A ten-week training room practicum on skills in preventive strapping and review first aid and rehabilitation techniques, followed by a five-week practicum with local high schools or professional teams. Enrollment in these courses requires admission to the Physical Education program.

READING EDUCATION
RED 4310 READING FOR THE CHILD (3)
PR: Admission to college of Education. Prereading, word recognition, comprehension and basic study skills and various reading approaches and reading interests.

RED 4334 READING IN THE SECONDARY SCHOOL (3)
Basic course in Reading for Secondary school personnel.

RED 4360 READING IN SECONDARY CONTENT AREAS (2)
Provides basic instruction on phonics, word recognition, readability, interests, corrective procedures, reading behaviors, comprehension, etc. Offered only in conjunction with special content reading courses.

RED 4511 CORRECTIVE READING FOR THE CHILD (3)
PR: RED 4310 or equivalent. Procedures for meeting individual differences through diagnosis of needs, differentiated instruction, selected use of materials, and classroom organization.

SCHOOL OF LIBRARY AND INFORMATION SCIENCE
LIS 2001 USE OF THE LIBRARY (2)
An introduction to the resources of the University of South Florida Library. Emphasis will be placed on library materials germane to the course work of the undergraduate. (S/U only.)

LIS 4302 PRODUCING AUDIOVISUAL MATERIALS (2)
PR: Upper level standing or CI. Basic skills in designing and preparing audiovisual materials for wide variety of instructional and communicative purposes.

LIS 5315 INSTRUCTIONAL GRAPHICS (3)
PR: CI. Theoretical aspects, planning and production of instructional graphic material. The Theory of graphic communications. Interpreting needs for instructional materials appropriate for given behavioral objectives.
SCI 4305 COMMUNICATION SKILLS IN THE SCIENCE CLASSROOM
Reading and communication skills important in understanding scientific literature and communicating findings to others.

SCI 4320 TEACHING METHODS IN MIDDLE GRADE SCIENCE
PR: Completion of 25 semester hours of Science or CC. Survey techniques and materials unique to science, grades 5-9. Not designed for high school certification purposes.

SCI 4330 TEACHING METHODS IN THE SECONDARY SCHOOL-SCIENCES
PR: Completion of 28 hours in approved science areas, EDG 4620 (or CR), and CC. Techniques and materials of instruction in secondary school sciences.

SCI 4630 NEW TRENDS IN TEACHING THE PHYSICAL SCIENCES
Physical Science Study Committee Physics, Chemical Education Materials Study, and other new approaches to the teaching of the physical sciences. Recommended for teachers of Physics, Chemistry, and Earth Sciences.

SSE 4336 SENIOR SEMINAR IN SCIENCE EDUCATION

SSE 4940 INTERNSHIP: SCIENCE EDUCATION
One full semester of internship in a public or private school. Intern takes Senior Seminar in Education concurrently. 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. (S/U only.)

SPECIAL EDUCATION
EED 4011 INTRODUCTION TO BEHAVIOR DISORDERS
PR: EEX 3010, or equivalent or Cl. Survey of emotional 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 4311 EDUCATIONAL PROCEDURES FOR STUDENTS WITH BEHAVIOR DISORDERS
PR: EEX 3010, EED 4011, or equivalent or Cl. Methods, materials and instructional techniques; development and implementation of individualized education programs; classroom organization and curriculum for students with behavior disorders.

EED 4905 INDEPENDENT STUDY: BEHAVIOR DISORDERS
PR:CI. Specialized independent study determined by the student's needs and interests. May be repeated up to 3 credit hours when subjects vary. (S/U only.)

EED 4909 DIRECTED STUDY: BEHAVIOR DISORDERS
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

EED 4941 UNDERGRADUATE SUPERVISED PRACTICUM
IN BEHAVIOR DISORDERS
PR: Cl. Field experience in classroom management, clinical teaching and assessment in behavior disorders. (S/U only.) Repeatable up to 6 credit hours.

EEX 4010 INTRODUCTION TO SPECIAL EDUCATION

EEX 4070 INTEGRATING EXCEPTIONAL STUDENTS IN THE REGULAR CLASSROOM
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. No credit for department majors.

EEX 4221 EDUCATIONAL ASSESSMENT OF EXCEPTIONAL STUDENTS
PR: EDF 3214, EEX 3010, and an Exceptional Child Education major. Introduction to and familiarization with formal and informal techniques used to measure and evaluate all exceptional students. The interpretation of information so derived for utilization in educational programming and individualization of instruction.

EEX 4243 EDUCATION OF THE EXCEPTIONAL ADOLESCENT AND ADULT
PR: EEX 3010 or equivalent or Cl. 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 4905 INDEPENDENT STUDY: EXCEPTIONAL STUDENT EDUCATION
PR: Cl. Specialized independent study determined by the student's needs and interests. May be repeated up to 3 credit hours when subjects vary. (S/U only.)
EMR 4310 EDUCATIONAL PROCEDURES FOR ELEMENTARY AGE EDUCABLE MENTALLY RETARDED CHILDREN (3)  
PR: EMR 3011, RED 4310, EMR 4941 either previously or concurrently. Special class organization, curriculum development, procedures and materials for elementary aged educable mentally retarded children.

EMR 4905 INDEPENDENT STUDY: MENTAL RETARDATION (1-3)  
PR: Cl. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

EMR 4909 DIRECTED STUDY: MENTAL RETARDATION (1-3)  
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

EMR 4941 UNDERGRADUATE SUPERVISED PRACTICUM IN MENTAL RETARDATION (1-6)  
PR: EMR 3011 and major in Mental Retardation. Supervised Practicum experiences in the educational, social and vocational programming for mentally retarded individuals. A one hour per week seminar is required concurrently. Repeatable up to a total of 6 hours credit. (S/U only.)

EPH 5051 ADVANCED THEORIES IN MOTOR AND PHYSICAL DISABILITIES (3)  
PR: EEX 3010 or Cl. Biological and functional aspects of motor and physical health disabilities, including dysfunctions in central nervous system covering motor, sensory, language and psychological disorders.

EPH 5321 EDUCATIONAL STRATEGIES FOR PHYSICALLY AND MULTIHANDICAPPED STUDENTS (3)  
PR: EPH 5051. Educational management of students with cerebral palsy, motor disabilities and multihandicapped conditions including rehabilitation and other community services.

EVI 5311 THE VISUALLY HANDICAPPED IN THE CLASSROOM (3)  
PR: EEX 3010 or Cl. The visually handicapped in the classroom, structure, hygiene and educational implications.
CHEMICAL ENGINEERING

CIVIL ENGINEERING AND MECHANICS

COMPUTER SCIENCE AND ENGINEERING

ELECTRICAL ENGINEERING

INDUSTRIAL AND MANAGEMENT SYSTEMS ENGINEERING

MECHANICAL ENGINEERING

ENGINEERING TECHNOLOGY
Associate Professor: D. C. E. Naehring; Instructor: D. K. Gooding; Visiting Faculty: W. Snyder.

BASIC AND INTERDISCIPLINARY ENGINEERING

EGN 1002 ENGINEERING ORIENTATION
The role of engineering in society, characteristics of different fields of engineering, required preparation for engineering careers, techniques and approaches used by engineers in their profession. (S/U only.)

EGN 1115L INTRODUCTION TO DESIGN GRAPHICS
An introduction to the basic principles of engineering design. The course will include the graphic projective systems used in engineering drawing and design. Methods of graphic communication and graphic analysis of engineering design problems will be investigated.

EGN 2200 ENGINEERING WITH COMPUTERS
PR: EGN 2210. Fundamental concepts in engineering and computer applications. Examples chosen from various areas of engineering to illustrate design modelling and analysis with computer assistance. Some topics involve laboratory.

EGN 2210 FORTRAN FOR ENGINEERS
PR: MAC 3281. The FORTRAN programming language will be used to analyze and solve typical Engineering problems on modern computing equipment. The student will learn the syntax of the FORTRAN programming language; the practical utilization of modern computing equipment and operating systems; general problem solving techniques; and modern programming practices.

EGN 3313 STATICS

EGN 3321 DYNAMICS
PR: EGN 3313. Dynamics of discrete particles; kinematics and kinetics for rigid bodies. Lec.

EGN 3331 MECHANICS OF MATERIALS
PR: EGN 3313. Stress, strain, Hooke's Law; torsion, beam, column analysis; combined stresses; inelastic effects, limit design. Lec.

EGN 3331L MECHANICS OF MATERIALS LABORATORY

EGN 3343 THERMODYNAMICS I

EGN 3354C BASIC FLUID MECHANICS

EGN 3365L MATERIALS ENGINEERING I
PR: CHM 2046, EGN 3313. Structure and property relationships in engineering materials, i.e., metal, ceramic and polymer systems. Environmental effects are also treated.

EGN 3373 INTRODUCTION TO ELECTRICAL SYSTEMS I

EGN 3374 INTRODUCTION TO ELECTRICAL SYSTEMS II
PR: EGN 3373. Continuation of EGN 3373.

EGN 3375 INTRODUCTION TO ELECTRICAL SYSTEMS III
PR: EGN 3373. Continuation of EGN 3373 or EGN 3374.

EGN 3433L SYSTEM DYNAMICS
PR: PHY 3049, EGN 4450. Dynamic analysis of electrical, mechanical, hydraulic and thermal systems; LaPlace transforms; numerical method; use of computers in dynamic systems.

EGN 3443 ENGINEERING STATISTICS I
PR: MAC 3283. An introduction to the basic concepts of statistical analysis with special emphasis on engineering applications.

EGN 3613 ENGINEERING ECONOMY I
A study in analyzing the economic limitations imposed on engineering activities using basic models which consider the time value of money.

EGN 4355 COMPRESSIBLE FLOW
PR: EGN 3354C. Fundamental and experimental concepts in compressible flow theory of fluids.

EGN 4366 MATERIALS ENGINEERING II
PR: EGN 3365L. Applications and structure property relationships of commonly used engineering materials. Steel, nonferrous alloys and their welding, heat treatment and processing. Introduction to ceramic and polymeric materials.

EGN 4420 NUMERICAL METHODS OF ANALYSIS
ECH 5422 ENGINEERING ANALYSIS II

ECH 5423 ENGINEERING ANALYSIS III
CC or EGN 4450 and MAP 4302. Advanced matrix algorithms: LU and QR factorizations, least-squares, pseudo-inverses. Finite fields and coding applications. Probabilities of error detection and correction.

ECH 5424 ENGINEERING ANALYSIS IV
PR: MAC 4302 or CC. Analytic functions, conformal mapping, residue theory, Laurent series, transforms. Applications to various problems in engineering and physics.

ECH 4415 REACTING SYSTEMS
PR: ECH 4123, CHM 4412. CR. EMC 4522L. Equilibrium and rate phenomena in reacting systems. Description of homogeneous chemical reactors for design and control. Lecture/laboratory.

ECH 4415L REACTING SYSTEMS LAB
PR or CR: ECH 4415 or CI. Engineering laboratory experiments in reacting systems. Formal oral and written presentations.

ECH 4605C PROCESS ECONOMICS AND OPTIMIZATION

ECH 4615 PLANT DESIGN AND ECONOMICS
PR: ECH 4413, ECH 4415 or CI. Methods of cost estimation and profitability measures. Analysis and synthesis of optimal chemical processing routes. Design of chemical process equipment. Introduction to computer-aided design, Case studies.

ECH 4711 ENVIRONMENTAL & REGULATORY ASPECTS OF BIOTECHNOLOGY
PR: Senior standing in engineering or CI. Consideration of environmental aspects of biotechnology workplace such as worker health & safety and sanitary & sterilization practices. Also will discuss legal and regulatory aspects, quality control, and product testing and certification.

ECH 4745 THEORY AND DESIGN OF BIOPROCESSES
PR: Senior standing in engineering or CI. Introduction to biotechnology, including applied microbiology, enzyme technology, biomass production, bioreactor design, and transport processes in biosystems. Open to majors and non-majors with CI.

ECH 4905 INDEPENDENT STUDY
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated up to 9 credit hours.

ECH 4930 SPECIAL TOPICS IN CHEMICAL ENGINEERING I
PR: CC. May be repeated up to 9 credit hours.

ECH 4931 SPECIAL TOPICS IN CHEMICAL ENGINEERING II
PR: CI. May be repeated up to 9 credit hours.

ECH 5158C SEMINAR IN THE PHILOSOPHY OF THERMODYNAMICS
PR: CI. Philosophical and technical aspects of contemporary thermodynamics, including entropy, time, irreversible processes, complex structures, and analysis of biological systems. Includes topics in philosophy of science. Open to majors and non-majors.

ECH 5746 INTRODUCTION TO BIOMEDICAL ENGINEERING
PR: Senior standing in engineering or CI. Introduction to biomedical engineering, including transport phenomena in biomedical systems, biomaterials, biomedical instrumentation, prosthetic devices, and clinical engineering. Open to non-engineering students with CI.

ECH 5747 SELECTED TOPICS IN CHEMICAL ENGINEERING BIOTECHNOLOGY
PR: Senior standing in engineering or CI. Selected topics in chemical engineering biotechnology, including pharmaceutical engineering, immobilized enzyme technology, food engineering, and fermentation. Open to majors and non-majors with CI. May be repeated for credit as subjects vary.

ECH 5748 SELECTED TOPICS IN BIOMEDICAL ENGINEERING
PR: CI. Selected topics in biomedical engineering, including biomedical materials, biodynamics of circulation, separation processes in biomedical systems, and artificial organ systems. May be taken by non-engineering students with CI. May be repeated for credit as subjects vary.

ECH 5930 SPECIAL TOPICS III
PR: CI. May be repeated up to 9 credit hours.

ECH 5931 SPECIAL TOPICS IV
PR: CI. May be repeated up to 9 credit hours.

EMC 3310 THERMODYNAMICS II
PR: EGN 3343. Mass and energy balances on steady and unsteady state systems with and without chemical reactions. Combustion processes, power and refrigeration cycles.

EMC 3301 INSTRUMENT SYSTEMS
PR: EGN 3373. Applications of analog and digital devices to instrumentation problems in chemical and mechanical engineering, basis electrical measurements. Computer assisted measurements and process monitoring.

EMC 4514 AUTOMATIC CONTROLS I
PR: ECH 4265C. Analysis of devices for measurement and control and factors affecting process dynamics. Block diagram representation of control systems. Modes of control for single loops and
stability requirements. Lecture/laboratory.

EMC 4522L, CHEMICAL AND MECHANICAL
ENGINEERING LABORATORY II
PR: EMC 3303L. Continuation of EMC 3303L with emphasis on material and energy balances of mechanical and chemical systems and processes. Lec.-lab. The Team-Project-Time Approach.

EMC 5191C HEAT TRANSFER PROJECTS
PR: Cl. Industrial design projects in the heat transfer field. Varies each term. May be repeated once for credit.

EMC 5930 SPECIAL TOPICS III
PR: CC.

EMC 5931 SPECIAL TOPICS IV
PR: CC.

CIVIL ENGINEERING AND MECHANICS

CEG 4011 SOIL MECHANICS I
PR: EGN 3354C. Fundamental and experimental concepts in soil mechanics with emphasis on soil properties, soil moisture, soil structure, and shearing strength.

CEG 4012 SOIL MECHANICS II
PR: CEG 4011. Design of retaining walls, earth slopes, foundations to control settlement, soil stabilization and foundations subjected to dynamic loads. Computer applications to soil mechanics will be covered.

CEG 4801 GEOTECHNICAL DESIGN
PR: CEG 4011. Design of geotechnical systems including bases, foundations, embankments, and dams.

CEG 4115 FOUNDATION ENGINEERING
PR: CEG 4011 or Cl. Design of shallow foundations, cantilevered and anchored retaining walls, piling, drilled piles and special foundations. Computer applications to geotechnical engineering are covered.

CEG 5205 LABORATORY TESTING FOR
GEOTECHNICAL ENGINEERS
PR: CEG 4011 or Cl. Both routine and advanced forms of soil testing are covered. Emphasis is placed on procedures and application of results to design.

CES 4102 STRUCTURES I
PR: EGN 3331. Analysis of simple structural systems, both determinate and indeterminate. Introduction to the use of energy methods in indeterminate structures.

CES 4104 ADVANCED MECHANICS OF MATERIALS
PR: EGN 3331, MAP 4302. Analytical analysis of the mechanical behavior of deformable solids; special topics in beam theory, elastic and inelastic methods, plastic limit analysis flexure and torsion of beams; introduction to finite element computer methods.

CES 4141 MATRIX STRUCTURAL ANALYSIS

CES 4561 COMPUTER AIDED STRUCTURAL DESIGN
PR: CES 4141. Computer aided structural design and analysis using existing finite element program, static dynamic loading.

CES 4605 CONCEPTS OF STEEL DESIGN
PR: CES 3102. Introduction to steel design and AISc Manual of Steel Construction: Design of tension members; compression members; beams; beam columns; and bolted, welded, and riveted connections.

CES 4618 STRUCTURAL DESIGN STEEL
PR: CES 4605. Design of structures made of steel.

CES 4702 CONCEPTS OF CONCRETE DESIGN
PR: CES 3102. Introduction to concrete design and the ACI Building Code Requirements for reinforced concrete; Design of flexural reinforcement in beams and slabs, design of shear reinforcement, design of concrete columns.

CES 4704 STRUCTURAL DESIGN-CONCRETE

CES 4820C TIMBER AND MASONRY DESIGN
PR: EGN 3331, CES 3102, CES 4702. Fundamentals of timber design including beams, columns, connections and formwork. Introduction to masonry design including design of beams, walls, columns, and pilasters.

CES 5104 ADVANCED MECHANICS OF MATERIALS
PR: EGN 3331, MAP 4302. Analytical study of the mechanical behavior of deformable solids. Basic concepts, stress and strain transformations, special topics in beams, introduction to theories of elasticity, and bending of thin plates.

CES 5209C STRUCTURAL DYNAMICS
PR: CES 3102. Behavior of structural components and systems when subjected to periodic dynamic loads.

CES 5715 PRESTRESSED CONCRETE
PR: Cl. Fundamental principles of prestressing; calculation of losses; stress analysis and design of simple beams for flexure and shear. Examples of prestress applications.

CGN 3801 DESIGN AND PRACTICES
PR: EGN 3354C, EGN 3365L, EGN 3331 Methodology of the design process in civil engineering. Includes problem definition, criteria, data collection and analysis, information sources, planning, specifications, and presentation of technical information.

CGN 4122C ENGINEERING CONTRACTS,
SPECIFICATIONS AND ETHICS
Focus on engineering responsibilities in the technical aspects of preparing contracts and specifications. Objectives are to teach the student their legal and ethical responsibilities in the preparation of contracts and specifications. Make the student aware of technical problems in the preparation of proposal; bid documents and contracts. Emphasis of ethics of engineers-client agreements.

CGN 4851 CEMENT AND CONCRETE DESIGN
PR: EGN 3365L. Classifications and production of cements. Design and testing of concrete mixes to produce desired properties.

CGN 4905 INDEPENDENT STUDY
PR: CC. Specialized independent study determined by the students' needs and interests. May be repeated up to 15 credit hours. (S/U only.)

CGN 4911 RESEARCH IN CIVIL ENGINEERING
AND MECHANICS
PR: CC.

CGN 4914 SENIOR PROJECT
PR: Cl. Problem-solving experience and training for seniors in research and/or design projects. Written final reports are required.

CGN 4933 SPECIAL TOPICS IN CIVIL ENGINEERING
AND MECHANICS
PR: Cl. New technical topics of interest to civil engineering students.

CGN 5933 SPECIAL TOPICS IN CIVIL ENGINEERING
AND MECHANICS
PR: Cl. New technical topics of interest to civil engineering students. May be repeated up to 6 credit hours.

CWR 4103 WATER RESOURCES ENGINEERING
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 4202 HYDRAULICS
PR: EGN 3354C. Fundamental and applied aspects of pipe flow, free surface flow, and unsteady flow for hydraulic systems.

CWR 4810 HYDRAULIC DESIGN
PR: EGN 4616, ENV 4622. Design of hydraulic systems, including drainage, water supply, and flood control.

EES 5203 WATER QUALITY FOR ENGINEERS
PR: Cl. An introduction to the form, structure, and chemical activities of the important processes which are essential to treatment of domestic, and industrial wastewater.
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.

EHA 4204 processes in MATERIALS ENGINEERING (3)
PR : EGN 3365L. Introduction to the basic theories of solidification and ultraprecision of materials, and discussion of the primary methods of shaping and forming materials.

EHA 4703 FAILURE ANALYSIS AND PREVENTION (3)

EHA 4704 SELECTION AND APPLICATION OF ENGINEERING MATERIALS (2)
PR : EGN 3365L. Determination of the property requirements for the utilization of materials in specific applications, comparison of properties of metals, plastics, and ceramics, the effect of heat treatment, etc., on materials, property limitations.

ENV 3101 ENVIRONMENTAL ENGINEERING (3)
CR : EGN 3354. An introduction to various aspects of environmental problems faced by today's society. Topics covered are: air pollution, water pollution, noise pollution, solid waste management, ionizing radiation, disease transmission, and food protection.

ENV 4101 AIR POLLUTION CONTROL (3)
PR : EGN 3354C. Behavior and effects of atmospheric pollutants and the principles of making measurements in the environment. Basic concepts of meteorology and control technology are discussed. Regulatory aspects and air pollution standards are covered.

ENV 4402 ENVIRONMENTAL ENGINEERING LABORATORY (1)
PR : CHM 3200. Laboratory experience in the measuring of environmental parameters.

ENV 4417 WATER QUALITY AND TREATMENT (3)
PR : CWR 4202. An introduction to municipal water supply and waste water treatment. Topics include water requirements and waste volumes, water quality, physical and chemical treatment processes, and advanced wastewater treatment processes.

ENV 4432 WATER SYSTEMS DESIGN (2)
PR : EGN 3354C. Corequisite ENV 4503. A design oriented course which utilizes the theory obtained in the Unit Operations course to design both industrial and domestic water treatment and water transport systems. It emphasizes the design procedures normally used in environmental practice.

ENV 4502 ENVIRONMENTAL UNIT OPERATIONS (3)
PR : EGN 3343, EGN 3344C. CR : The theory and the design of unit operations normally used in the practice of environmental engineering, such as agitation and mixing of liquids, filtration, leaching, gas absorption, sedimentation and clarification, drying, and evaporation.

ENV 4503 ENVIRONMENTAL UNIT PROCESSES (3)
PR : EMC 3001, ENV 4502. The theory and design of unit processes normally used in environmental engineering such as coagulation of colloidal materials, water stabilization, water softening and neutralization, ion exchange, adsorption and oxidation processes for removal of iron and magnesium.

ENV 4531 WASTE WATER SYSTEMS DESIGN (2)
PR : ENR 4502. Emphasis is placed upon design practice and economics for a comprehensive design of a waste water system and a collection system.

ENV 4552 ENVIRONMENTAL UNIT OPERATIONS AND PROCESSES LABORATORY (1)
PR : EGN 3354C. CR: ENV 4012. Experimental work of the theory and design practices learned in Unit Operations and Unit Processes lecture courses. It provides the student familiarity with the development of bench and pilot plant processes and operations used in environmental engineering.

ENV 5105 AIR RESOURCE MANAGEMENT (3)
PR : CI. Air pollution source impacts on ambient air quality, modeling, regulatory approaches, source strategic controls and surveillance.

ENV 5345 SOLID AND HAZARDOUS WASTE CONTROL (3)
PR : CI. Treatment practices and design of waste handling systems to include: land treatment, pre-treatment, incineration, resource recovery, recycle, waste elimination.

ENV 5439 URBAN WATER TREATMENT THEORY AND DESIGN (3)
PR : ENV 4417 and CI. A study of the theory of water treatment and the relation of theory to analysis and design practice. Emphasis is given to unit processes. The course is devoted to the design and analysis of specific water treatment facilities.

ENV 5539 URBAN WASTEWATER TREATMENT THEORY AND DESIGN (3)
PR : ENV 4417, CI. A study of the theory of wastewater and the relation of theory to analysis and design practice. Emphasis is given to unit processes. The course is devoted to the design and analysis of specific wastewater treatment works.

ENV 5614 ENVIRONMENTAL RISK ANALYSIS (3)
PR : CI. Study of comprehensive application of risk analysis techniques for environmental control and protection purposes.

SUR 3140C ENGINEERING LAND SURVEYING (3)
PR : CI. Principles of land surveying for engineering practice. Traverses, levels, boundary surveys, route surveys, coordinate geometry, and mapping.

TTE 4004 TRANSPORTATION ENGINEERING I (3)
PR : EGN 3331. Principles of surface transportation system development, design, and operations; administration, modal characteristics, capacities, and functional classifications; vehicle kinematics, human factors and minimum design standards; traffic flow theory and queuing, capacity and signalization; transportation planning and economics.

TTE 4005 TRANSPORTATION ENGINEERING II (3)
PR : TTE 4004, SUR 3140. Techniques for the geometric route design of surface transportation systems; horizontal and vertical alignments. Spiral curves, superelevations and earthwork analysis; drainage, soils, and a rigid and flexible pavement design; right-of-way acquisition and Environmental impacts; site layout & design, and operation of alternate models including bus, air, rail, water, and pipeline facilities and terminals.

TTE 4801 TRANSPORTATION SYSTEMS DESIGN (2)
PR : TTE 4005. Comprehensive surface transportation design laboratory experience involving function design, traffic and facility sizing, complete alignments, site surveying & layout plan and quantity preparation with computerized designed applications.

CAP 5400 DIGITAL IMAGE PROCESSING (3)
PR : EEL 4851 Data Structures, or Graduate Standing. Image formation, sources of image degradation, image enhancement techniques, edge detection operators, and threshold selection, low-level processing algorithms for vision, image data compression.

CAP 5600 INTRODUCTION TO ARTIFICIAL INTELLIGENCE (3)
PR : EEL 4851C. Basic concepts, tools and techniques used to produce and study intelligent behavior. Organizing knowledge, exploiting constraints, searching spaces, understanding natural languages, problem solving strategies, etc.

CAP 5682 EXPERT AND INTELLIGENT SYSTEMS (3)
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.

CAP 5690 FUNCTIONAL PROGRAMMING LANGUAGES (3)
PR : COP 4020. The properties of functional and applicative languages; comparison with conventional languages, features and
examples of applicative languages, LISP, KRC AND Forth. Implications to computer architecture.

CDA 4100 COMPUTER ORGANIZATION AND ARCHITECTURE (3)
PR: EEL 4705, or CC. CR: CDA 4103. Elements of computer systems; processors, memories and switches. Register transfer presentation of a computer. ALUs and their implementation. The control unit. Memory and I/O. Hardware support of operation system functions.

CDA 4103 MINICOMPUTER LABORATORY (1)
CR: CDA 4100. Minicomputer organization and programming.

CDA 4203 COMPUTER SYSTEM DESIGN (3)
PR: EEL 4705, EEL 4705L. Design Methods, Top-Down design. Building Blocks, Instruction and addressing models, minicomputer design, interfacing.

CDA 5405 MODELING COMPUTER SYSTEM PERFORMANCE I (3)

CDA 5406 MODELING COMPUTER SYSTEM PERFORMANCE II (3)

CGS 2080 COMPUTERS AND SOCIETY (3)
This computer literacy course covers the fundamentals of hardware, software, and programming languages, present a broad overview of data processing concepts, problems and applications for students with little or no computing background. (For non-engineering majors only.)

CIS 4810 INFORMATION ENGINEERING AND APPLIED SYSTEMS TECHNOLOGIES (3)
PR: COP 4400. The principles of information engineering using current and emerging computer systems technologies and information theory will be presented and applied. This would include major frame links, local-area/wide-area networks, advanced generation integrated software facilities and artificial intelligence/knowledge based systems.

CIS 4900 INDEPENDENT STUDY IN COMPUTER SCIENCE (1-5)
PR: CI. Specialized independent study determined by the needs and interests of the student. May be repeated up to 10 credit hours. (S/U only)

CIS 4910 COMPUTER SCIENCE PROJECT (2)
Projects intended to develop individual interests and abilities in computer science involving either computer hardware and software aspects of a well defined proposal.

CIS 4930 SPECIAL TOPICS IN COMPUTER SCIENCE I (1-4)
PR: CC.

CIS 4935 COMPUTER SCIENCE AND ENGINEERING SEMINAR (2)
PR: CC. This is a seminar course for majors in Computer Science and Engineering. May be repeated up to 4 credit hours.

COP 3000L COMPUTER SCIENCE LABORATORY (1)
CR: COP 3002. Laboratory for implementation of algorithms in a general purpose computer language.

COP 3002 INTRODUCTION TO COMPUTER SCIENCE (3)
PR: EGN 2210. CR: COP 3000L. Introduction to the concepts of algorithmic formulation of problems for computer solution and the general abstract operations used in these formulations.

COP 4020 PROGRAMMING LANGUAGES (3)
PR: EEL 4851C and COP 4400. An introduction to programming languages, survey of language types and design of translators and interpreters.

COP 4025 COMPARISON OF PROGRAMMING LANGUAGES (3)
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 4400 COMPUTER SYSTEMS (3)
PR: COP 3002, COP 3000L and MAC 3283 or CC. Principles of computer organization, machine and assembly language programming.

COP 4600 INTRODUCTION TO SYSTEMS PROGRAMMING (3)
PR: EEL 4851C, COP 4400. Introduction to systems programming. Design of operating systems. Concurrent processing, synchronization, and storage management policies.

COT 3100 INTRODUCTION TO DISCRETE STRUCTURES (3)
PR: MAC 3281 or equivalent. Introduction to set algebra, propositional calculus and finite algebraic structures as they apply to computer systems.

COT 4210 INTRODUCTION TO AUTOMATA THEORY AND FORMAL LANGUAGES (3)
PR: EEL 4851C, COT 3100, or CC. Introduction to the theory and application of various types of computing devices and the languages they recognize.

COT 4400 ANALYSIS OF ALGORITHMS (3)
PR: EEL 4851C and COT 3100. Design principles and analysis techniques applicable to various classes of computer algorithms frequently used in practice.

EEL 4705 LOGIC DESIGN (3)
PR: EGN 3373, CR: EEL 4705L or CC; for CS & E students CR or PR: COP 3002. Binary number systems; truth functions; Boolean algebra; canonical forms; minimization of combinational logic circuits; synchronous logic circuits in computers.

EEL 4705L LOGIC LABORATORY (1)
CR: EEL 4705.

EEL 4743L MICROPROCESSOR LABORATORY (1)
CR: EEL 4757. Laboratory for Microprocessor use and evaluation.

EEL 4757 MICROPROCESSOR PRINCIPLES AND APPLICATIONS (3)

EEL 4748 MICROPROCESSOR-BASED SYSTEM DESIGN AND APPLICATION (3)
PR: EEL 4757, EEL 4743L. Study of techniques for design of microprocessor-based systems used in various applications. Includes a project on development of an experimental application system.

EEL 4880C SOFTWARE ENGINEERING (3)
PR: Senior standing in Computer Science or CC: COP 3002, EEL 4851. Methods of designing and developing effective and efficient computer programs. Top-down design, structured programming, debugging and program analysis are addressed.

EEL 4851C DATA STRUCTURES (3)
PR: COP 3002, COP 3000L. Fundamentals of data organization for purposes of program efficiency, clarity and simplicity will be addressed.

EEL 4852C DATA BASE SYSTEMS (3)
PR: COP 4400 and EEL 4851C. Fundamentals of database management systems. CODASYL, network, hierarchical, and relational data base systems are analyzed, and typical applications are presented.

EEL 4771C DISTRIBUTED PROCESSING AND COMPUTER NETWORKS (3)
PR: COP 4600, CDA 4100. Design and analysis of distributed processing systems. Covers communication hardware and software, network operating systems, and reliability enhancement techniques.

EEL 5706 TESTING AND FAULT TOLERANCE (3)
PR: CDA 4101, COT 4130, or graduate standing. Reliability concepts, fault analysis and diagnosis in digital circuits, fault modeling, fault tolerant design, CMOS testability, self-checking circuits, design for testability, fault masking techniques, and fault simulation.

EEL 5771 INTRODUCTION TO COMPUTER GRAPHICS I (3)
PR: CC. An introduction to the evolution of computer graphics including point-plotting, line drawing, two-dimensional transformations and graphics software packages.
EEL 3100 NETWORK ANALYSIS AND DESIGN

EEL 3302 ELECTRONICS I
PR: EGN 3373. A course in the physical principles of electronic devices with emphasis on semi-conductor electronics. Includes the analysis and design of amplifiers and switching circuits.

EEL 3410, 4411 FIELDS AND WAVES I, II
PR: MAP 4302, PHY 3049, PHY 3049L. A basic introduction to electromagnetic field theory, including static and dynamic electromagnetic fields.

EEL 4102 LINEAR SYSTEMS ANALYSIS
PR: EEL 3100. Provides further study in the analysis of linear networks and systems. Includes time and frequency domain points of view, Laplace, Fourier and superposition integrals.

EEL 4108 DISTRIBUTED NETWORKS
PR: EEL 3410, EEL 3100. Transmission lines, standing waves, impedance, waveguides.

EEL 4163 COMPUTER AIDED DESIGN AND ANALYSIS
PR: EEL 3302. The emphasis is upon applications and how to use the major CAD programs as effective tools to solve a wide variety of engineering problems. The coverage includes solid state design, system analysis, digital logic, transfer function solutions and concludes with a brief look at thermal and mechanical systems analysis.

EEL 4305 ELECTRONICS II
PR: EEL 3302. Further study in electronic circuits. Includes feedback and frequency response techniques in amplifier design.

EEL 4381C SEMICONDUCTOR DEVICES
PR: EEL 3302. An introduction to the fundamentals of semiconductor materials and semiconductor device operation.

EEL 4411 See EEL 3410

EEL 4511 COMMUNICATION ENGINEERING
PR: EEL 4512. Analog telephone network; digitalization. Digital transmission and multiplexing. Digital switching; space division switching, time-division switching, space-time switching; analog environment. Broadcasting and recording (audio and video); television systems, cable and satellite TV.

EEL 4511L COMMUNICATIONS LABORATORY

EEL 4512 INTRODUCTION TO COMMUNICATION SYSTEMS
PR: EEL 3100. Signals and Fourier transforms in communication systems; measure of information in signals. AM, FM, and PM modulation and demodulation systems. Sampling, quantization and PCM. Data communication; terminals, and modems; repeaters, timing circuits, and interfaces. Local networks.

EEL 4567 ELECTRO-OPTICS
PR: EEL 3301L, EEL 3302L, EEL 3410. An introduction to the field of electro-optics, including visible and infra-red sources and detectors, radiometry, optical and electronic components, and fiber optics.

EEL 4567L ELECTRO-OPTICS LABORATORY
CR: EEL 4567. Experiments in electro-optics, including sources, detectors, radiometry, optical and electronic components, and fiber optic systems.

EEL 4567 LOCAL AREA NETWORKS AND INTERFACING
PR: EEL 4512. Network components: Communication terminals. PC's telephone, etc. Basics of LAN's, TX media topologies, access methods, and LAN characteristics. Interfacing of terminals and PC's to LAN's; NAU's and other interfacing devices; Interface selection. LAN design issues, repeaters, timing circuits, gateways.

EEL 4567 LINEAR CONTROL SYSTEMS

EEL 4705 LOGIC DESIGN
PR: EGN 3373. Non-majors may enroll with CI. Binary number system; truth functions; Boolean algebra; canonical forms; minimization of combinational logic circuits; logic circuits in computers.

EEL 4705L LOGIC LABORATORY
CR: EEL 4705.

EEL 4905 INDEPENDENT STUDY
PR: CI. Specialized independent study determined by the students' needs and interests. May be repeated up to 15 credit hours. (S/U only)

EEL 5006 DESIGN PROJECT
PR: Senior standing. An individual or team project involving the design of an electrical component system. Required of all electrical seniors.

EEL 4935, 4936, 4937 SPECIAL ELECTRICAL TOPICS I, II, III
(1-4 each)

EEL 5344 DIGITAL CMOS/VLSI DESIGN
PR: EEL 4705 or CC. Design, layout, simulation, and test of custom digital CMOS/VLSI chips, 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 PROCESSING
PR: EEL 4351 or CI. 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 5537 ANALOG CMOS/VLSI DESIGN

EEL 5366 LOW NOISE ELECTRONIC CIRCUITS
PR: EEL 3302. Noise sources, circuit noise representations, noise in diodes, bipolar transistors, field-effect transistors and sensors, low noise circuit design and noise measurements.

EEL 5437 MICROWAVE ENGINEERING
PR: EEL 4411, 4102, or CC. Introduction to passive and active components, devices, and circuits, including transmission lines and waveguides, employed in microwave integrated circuits and systems.

EEL 5462 ANTENNA THEORY
PR: EEL 4411 or CC. Antenna theory beginning with fundamental parameter definitions and continuing with mathematical concepts, elemental antennas and arrays.

EEL 5534 COMMUNICATION SYSTEMS I

EEL 5620 NONLINEAR CONTROL SYSTEMS
PR: EEL 4857. Principles of state-variables, phase-plane and describing functions.

EEL 5631 DIGITAL CONTROL SYSTEMS
PR: EEL 4857. Sample data and digital control processes.

EEL 5705 ADVANCED LOGIC SYSTEMS
PR: EEL 4705 or Graduate Standing.

EEL 5706 TESTING & FAULT TOLERANCE IN DIGITAL SYSTEMS
PR: CDA 4101, COT 4130, or graduate standing. Reliability concepts, fault analysis & diagnosis in digital circuits, fault modeling, fault tolerant design, CMOS testability, self-checking circuits, design for testability, fault masking techniques, and fault simulation.

EEL 5754 MICROPROCESSOR BASED DIGITAL SIGNAL PROCESSING
PR: EEL 4705 or CC. 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 5755 DIGITAL SIGNAL PROCESSING I
Design of IIR and FIR filters; quantization effects. Multi-rate processing; interpolation and decimation.

EEL 5935 IMAGE PROCESSING (3)
PR: EEL 5755 or CC. Two-dimensional signal processing 2-D, random fields. Image data compression; image enhancement, and object detection. Image processing by computers, applications of image processing.

EEL 5935, 5936, 5937 SPECIAL ELECTRICAL TOPICS I, II, III (1-3 each)
PR: CC.

ELR 3301L LABORATORY 1 (1)
PR: EGN 3373.

ELR 3302L LABORATORY 2 (1)
PR: ELR 3301L and EEL 3302, CR: EEL 4305.

ELR 4306L LABORATORY 4 (1)
PR: ELR 3301L CR: EEL 4411.

ENGINEERING TECHNOLOGY

ETG 4931 SPECIAL TOPICS IN TECHNOLOGY I (1-5)
PR: CC.

ETG 4932 SPECIAL TOPICS IN TECHNOLOGY II (1-5)
PR: CC.

ETI 3101 INDUSTRIAL STATISTICS (3)
PR: ETI 3010. Industrial applications of probability, testing of hypotheses, regression techniques and analysis of variance. (No credit for engineering majors.)

ETI 4600 INTRODUCTION TO INDUSTRIAL SYSTEMS (3)
PR: ETI 3101 or CC. Introduction to organizational planning and control functions in industrial systems.

ETI 4614 PRINCIPLES OF INDUSTRIAL OPERATIONS I (3)
PR: ETI classification or CC. Techniques of work measurement and methods design; principles of production control and inventory control.

ETI 4661 PRINCIPLES OF INDUSTRIAL OPERATIONS II (3)
PR: ETI 4600, ETI 4614, or CC. Application of techniques developed to the operation of an industrial firm through special projects.

INDUSTRIAL AND MANAGEMENT SYSTEMS

EIN 4251C AUTOMATION AND ROBOTICS (3)
PR: EIN 4304L, EGN 3613. Introduction to the practices and concepts of automation as applied to material handling, inventory storage, material transfer, industrial processes and quality control. Economic justification of automated activities.

EIN 4304C INTRODUCTION TO INDUSTRIAL ENGINEERING (3)
History of industrial engineering. Introduction to basic industrial processes and controls. Students research specific industries and visit local industrial plants.

EIN 4312L WORK ANALYSIS (3)
Operation analysis and workspace design, work measurement, standard data, ergonomics, and labor relations.

EIN 4313L HUMAN FACTORS (3)
Design of man-machine systems, by taking into consideration both human and machine capabilities and limitations.

EIN 4334 PRODUCTION CONTROL (3)
PR: EGN 3443 PR: ESI 4314. Activity forecasting models and control. Design and use of inventory control models, both deterministic and probabilistic. Analysis of resource requirements.

EIN 4364L PLANT FACILITIES DESIGN I (3)
PR: EIN 4313L. Design and modification of industrial production and material handling facilities. Basic analysis techniques, use of computer programs, automated warehousing.

EIN 4365 FACILITIES DESIGN II (3)
PR: EIN 4364. CAD/CIM, complete design of a plant facility. Course to use computers and software geared toward plant design and operation. A team of students is to be responsible for the complete project.

EIN 4395L MANUFACTURING PROCESSES (3)
PR: EGN 3385, EIN 4304. The study of basic manufacturing processes. CAD/CAM and precision assembly.

EIN 4933 SPECIAL TOPICS IN INDUSTRIAL ENGINEERING (1-5)
Special topics related to economic analysis, optimization, human factors, manufacturing and automation aspect of industrial systems. Repeatable up to 5 credit hours.

EIN 5101C ARBITRATION OF INDUSTRIAL ENGINEERING DISPUTES (3)
Case studies in the arbitration of technical disputes involving job evaluation and classification, labor standards, wage incentives, crew size, etc.

EIN 5218 HAZARDS CONTROL ENGINEERING (3)
PR: Senior or graduate status. Open to non-majors. Nature of industrial accidents. Practices, standards, OSHA, and other governmental requirements for reducing accident frequency and severity in the industrial environment. Design measures for the prevention of health impairment due to non-accidental causes.

EIN 5245 WORK PHYSIOLOGY AND BIOMECHANICS (3)
PR: CC. A study of the human physiological limitations encountered in the design, analysis and evaluation of man-machine systems.

EIN 5253 HUMAN PROBLEMS IN AUTOMATION (3)
The study of analysis of combined human operations, automated processes, and robotics in industrial environments.

EIN 5301C INDUSTRIAL ENGINEERING CONCEPTS (3)
Survey of industrial and management engineering methodology. Work measurement, methods, production and inventory control, and facility design.

EIN 5322 PRINCIPLES OF ENGINEERING MANAGEMENT (3)
Introduction to the fundamentals of accounting, finance, management, and marketing as needed by engineers, scientists, and other professionals in managerial positions.

EIN 5333 ENGINEERING VALUE ANALYSIS (3)
PR: EIN 4352 or equivalent. Statistical models for analyzing engineering alternatives from an economic viewpoint. The use of advanced engineering economy concepts in solving industrial problems.

EIN 5381C LOGISTICS ENGINEERING (3)
PR: EGN 3443 or equivalent. Principles and practices of Logistics Engineering are covered. System requirements, logistics support analysis, test and evaluation are considered.

EIN 5388 TECHNOLOGY FORECASTING (3)
Introduction to forecasting techniques used to plan and schedule production and inventory control functions. Smoothing and decomposition time-series methods, regression methods, and autoregressive/ moving average methods are presented. Integrating forecasting and planning into the engineering organization is discussed.

EIN 5914, 5915, 5916 SPECIAL INDUSTRIAL PROJECTS I, II, III (1-3 each)
PR: CC.

ESI 4118 COMPUTERS IN INDUSTRIAL ENGINEERING (3)

ESI 4221 INDUSTRIAL STATISTICS AND QUALITY CONTROL (3)
PR: EGN 3443. Application of statistical techniques to the control of industrial processes. Control charts, acceptance sampling, design of experiments, analysis of variance and regression.

ESI 4244 DESIGN OF EXPERIMENTS I (3)
PR: EGN 3443. Activity forecasting models and control. Design and use of inventory control models, both designs applicable to engineering analyses. Analysis of variance and regression.

ESI 4314 DETERMINISTIC O. R. (3)
PR: EGN 4450. An introduction to operations research techniques with particular emphasis on deterministic models. Linear programming, dynamic programming, goal programming, integer programming, and PERT/CPM networks are considered.
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ESI 4315 PROBABILISTIC O. R. (3)
PR: EGN 3443. A continuation of ESI 4314 with emphasis given
to probabilistic models in Operations Research. Discrete and continu­
ous time processes, queuing models, inventory models, simulation
models, Markovian decision process and decision analysis.

ESI 4521 INDUSTRIAL SYSTEMS SIMULATION (3)
PR: ESI 4315. A study of the development and analysis of computer
simulation models: Monte Carlo, time-slice, and next-event. Intro­
duction to special purpose simulation languages.

ESI 5523 RELIABILITY ENGINEERING (3)
PR: EGN 3443 or equivalent. Fundamental concepts of reliability,
estimation of reliability of systems and components. Measures of
availability, maintainability and reliability.

ESI 5522 COMPUTER SIMULATION II (3)
PR: ESI 4521 or equivalent. Design of discrete and continuous
simulation models. Model validation and verification. Statistical
analysis of simulation model output.

COMPUTER SERVICE COURSES (No credit for Engineering Majors)

CGS 3100 SC INTRODUCTION TO COMPUTERS II (3)
PR: CGS 3060. Number systems, internal representation of data and
instructions, algorithms and flowcharting. Introduction to machine
and assembler language and higher level language.

CGS 3100 CONTINUATION TO COMPUTERS II (3)
PR: CDA 3100. Continuation of CDA 3100. Introduction to large
computer systems assembler language and applications.

CGS 3060 SC INTRODUCTION TO COMPUTERS AND
PROGRAMMING IN BASIC-6A (3)
An overview of computer systems and their role in society. Survey of
the evolution of computer software and hardware technology with
emphasis on current applications. Introduction to programming
using the BASIC language.

CGS 3425 SC APL PROGRAMMING (3)
PR: CGS 3060. The use of the APL language as an interactive mode
to solve business and scientific programs.

CGS 3462 SC PASCAL PROGRAMMING (3)
PR: CGS 3060. Structured programming implemented with the PAS­
CAL language. Emphasis on program structure and data manipula­
tion.

CGS 3463 SC GPSS SIMULATION (3)
PR: COP 3200. The development and execution of discrete event
simulation models of real world systems using the GPSS language.

CGS 3464 SC SIMSCRIPT SIMULATION (3)
PR: CGS 3463. The use of the Simscript language in discrete event
simulation. Development of simulation models of real world sys­

tems.

CGS 4120 SC COMPUTER APPLICATIONS (3)
PR: COP 3200. Applications of various high level languages to
current scientific and engineering problems.

CGS 4260 SC MINI-COMPUTER APPLICATIONS (3)
PR: CGS 4465. Study of mini-computer system components, I-O
devices, theory of computer operation.

CGS 4465 SC DATA REPRESENTATION AND MANIPULATION (3)
PR: CDA 3100. Study of the internal representations of data, data
storage and retrieval, and data manipulations.

CGS 5540 SC COMPUTERS FOR RESEARCH I (3)
PR: Graduate student status. The use of the FORTRAN language in
solving research problems.

COP 3200 SC FORTRAN PROGRAMMING (3)
PR: CGS 3060. Solution of scientifically oriented problems using the
FORTRAN language. Particular emphasis is placed on file manipu­
lation and system libraries.

COP 3120 SC COBOL PROGRAMMING I (3)
PR: CGS 3060. Analysis of ANSI Standard COBOL language ele­
ments. Development of file structures and commercially oriented
applications.

COP 3121 SC COBOL PROGRAMMING II (3)
PR: COP 3120. Advanced applications of ANSI Standard COBOL.
Development of subroutines, relative I-O and data base applications
as used in a comprehensive data processing environment.

COP 3130 SC PLI PROGRAMMING (3)
PR: COP 3200. Use of PLI language features in programming for
business and scientific application. File and string manipulation,
asynchronous and stream-oriented transmission.

MECHANICAL ENGINEERING

EAS 4121 HYDRO AND AERODYNAMICS (3)
PR: EGN 3354, MAP 4302. Advanced fluid dynamics, ideal and
viscous flows, applications to flow around immersed bodies.

EAS 5100 AERODYNAMICS (3)
PR: EGN 4355, and CI. Fundamentals of aerodynamic flow and flight
including potential theory, circulatory theory, viscosity considera­
tions, wing theory and design.

EMC 3301 INSTRUMENT SYSTEMS (4)
PR: EGN 3373. Applications of analog and digital devices to instru­
mentation problems in chemical and mechanical engineering.
Basical electrical measurements. Computer assisted measurements and
process monitoring.

EMC 4314 AUTOMATIC CONTROLS I (3)
PR: EGN 3433, EMC 3103, EMC 4118; CR: EMC 4411. Analysis of
devices for measurement and control and factors affecting process
dynamics. Block diagram representation of control systems. Modes
of control for single loops and stability requirements.

EMC 5191C HEAT TRANSFER PROJECTS (3)
PR: CI. Industrial design projects in the heat transfer field. Varies
each term. May be repeated once for credit.

EMC 5510 MOTOR SELECTION AND CONTROL (3)
PR: EGN 3373, EGN 4343. Standard electrical voltages; power
wiring in industrial plants; NEMA motor designs, techniques for
estimating motor starting times and temperature rise; motor selec­
tion; starting and operating safety interlocks; conventional motor
starting and control systems; direct digital (programmable) con­
trols; electrical code requirements for conductors and protective
devices.

EML 3033 MEASUREMENTS LABORATORY (2)
PR: EGN 3343, EML 3001. Engineering laboratory measurements.
Use of the library and the writing of technical reports. Experiments in
the measurement of temperature, pressure, fluid flow, psychomet­
rics, concentration, viscosity. Mass-energy balances of simple sys­

tems.
EML 3264 KINETICS AND DYNAMICS OF MACHINERY (3)
PR: MAC 3282, PHY 3048. 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 3500 MACHINE ANALYSIS AND DESIGN I (3)
PR: EGN 3313. Stress and deflection analysis of machine parts, variable loads, endurance limits, fasteners, bearings, power transmission, code consideration of pressure and vacuum vessels, elements of design.

EML 4412 MECHANICAL CONTROLS (3)

EML 4503 MACHINE ANALYSIS AND DESIGN II (3)
PR: EML 3500, EML 3264. Continuation of EML 3500. Antifriction bearings, journal bearings, power transmission, shafting.

EML 4552C PROJECT DESIGN I (3)
PR: Senior standing in mechanical engineering or CC. Comprehensive design or feasibility project requiring application of previously acquired engineering knowledge; use of ANSYS and CAD.

EML 4552C PROJECT DESIGN II (3)
PR: EML 4551 or CC. Comprehensive design or feasibility study project. In some cases may be a continuation of EML 4551.

EML 4601 REFRIGERATION AND AIR CONDITIONING (3)

EML 4905 INDEPENDENT STUDY (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated up to 15 credit hours.

EML 4930 SPECIAL TOPICS IN MECHANICAL ENGR. I (1-4)
PR: CC. May be repeated up to 9 credit hours.
ART


DANCE


MUSIC EDUCATION


THEATRE


ART

ARH 4100 PREHISTORIC AND ANCIENT ART
A comprehensive study of Paleolithic, Neolithic, Egyptian, Assyrian and Mesopotamian painting, sculpture and architecture.

ARH 4170 GREEK AND ROMAN ART
A comprehensive study of Aegean, Mycenaean, Etruscan, Greek and Roman painting, sculpture and architecture.

ARH 4200 MEDIEVAL ART
A comprehensive study of early Christian, Byzantine and Medieval painting, sculpture and architecture.

ARH 4301 RENAISSANCE ART
A comprehensive study of Renaissance and Mannerist painting, sculpture and manuscript illumination.

ARH 4350 BAROQUE AND ROCOCO ART
A comprehensive study of the painting, sculpture and architecture in France, Italy and the Netherlands in the seventeenth and early eighteenth centuries.

ARH 4430 NINETEENTH CENTURY ART
A comprehensive study of nineteenth century painting, sculpture and architecture in France and England.

ARH 4450 TWENTIETH CENTURY ART
A comprehensive study of painting, sculpture and architecture from Cezanne to the present in Europe and the United States. Required of all art majors.

ARH 4530 ORIENTAL ART
An introduction to concepts of the arts of China, Japan and other Far Eastern countries.

ARH 4790 SELECTED TOPICS IN THE HISTORY OF FILM
In-depth investigation of a selected period, development, or school in the history of film as art. May be repeated.

ARH 4796 CRITICAL STUDIES IN ART HISTORY - 6A
PR: Ci. Specialized intensive studies in art history. Specific subject matter varies. To be announced at each course offering. May be repeated for different topics only.

ARH 4937 SEMINAR IN THE HISTORY OF ART HISTORY
PR: Four courses in Art History at the 4000 level, Ci. An examination of the origins of Art History as a discipline and changing nature of Art History from Vasari to the present.

ARH 5333 CULTURAL AND INTELLECTUAL HISTORY OF RENAISSANCE AND BAROQUE ART
A course in which Renaissance and Baroque theories of art are treated as part of general cultural and intellectual history.

ARH 5451 CULTURAL AND INTELLECTUAL HISTORY OF MODERN ART
A course in which theories of modern artists, and of critics and historians of Modernism are treated as a part of general Culture and Intellectual History.

ARH 5795 METHODS OF ART HISTORY
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. (Must be taken during the student's first two semesters in the program.)

ART 2202C VISUAL CONCEPTS I
Studio problems supplemented by reading and discussion. Consideration of spatial organization of the two-dimensional surface.

ART 2203C VISUAL CONCEPTS II
Studio problems supplemented by reading and discussion. Consideration of the three-dimensional organization of space and mass.

ART 3001 INTRODUCTION TO ART - 6A
An expanded introductory treatment of basic concepts. For art majors and non-art majors.

ART 3110C CERAMICS I

ART 3301C DRAWING I

ART 3420 LITHOGRAPHY I
PR: Visual Concepts I. Introduction to Art and Drawing I. Intermediate problems in lithography with emphasis on the exploration of methods and media and development of individual concepts.

ART 3470 INTAGLIO I
PR: Visual Concepts I. Introduction to Art and Drawing I. Intermediate problems in intaglio with emphasis on the exploration of methods and media and the development of individual concepts.

ART 3510C PAINTING I

ART 3701C SCULPTURE I
PR: Visual Concepts II and Introduction to Art. Intermediate problems in sculpture with emphasis on the exploration of materials and media and the development of individual concepts.

ART 3935 STUDIO TECHNIQUES: SELECTED PROJECTS
PR: Visual Concepts I, II and Introduction to Art and Cl. Concentration in specialized technical data and process. May be repeated for
Pr: ART 3110C. Continued problems in ceramics. May be repeated.

ART 4320C DRAWING II
PR: ART 3301C. Continued problems in drawing. May be repeated.

ART 4421C LITHOGRAPHY II
PR: ART 3420. Continued problems in lithography. May be repeated.

ART 4471C INTAGLIO II
PR: ART 3470. Continued problems in intaglio. May be repeated.

ART 4520C PAINTING II
PR: ART 3510C. Continued problems in painting. May be repeated.

ART 4702C SCULPTURE II
PR: ART 3701C. Continued problems in sculpture. May be repeated.

ART 4900 DIRECTED READING
PR: Cl and CC. A course of reading and study in an area of special concern governed by student demand, instructor interest and/or departmental requirements. Registration by contract only. May be repeated for credit for different study areas only.

ART 4905 DIRECTED STUDY
PR: CC. Independent studies in the various areas of Visual Arts. Course of study and credits must be assigned prior to registration. May be repeated.

ART 4935 ART SENIOR SEMINAR
PR: Senior Status. To aid majors to understand, appraise, and perfect their own art and technique through critical and aesthetic judgments of their colleagues. Discussion and critical evaluation.

Admission to all 5000 level studio courses by Consent of Instructor.

ART 5125C CERAMICS II
PR: ART 4111C. Advanced problems in the various ceramic techniques, including throwing and glaze calculation. May be repeated.

ART 5340C DRAWING
PR: ART 4320C. Advanced problems in various drawing techniques. Emphasis on individual creative expression. May be repeated.

ART 5422C LITHOGRAPHY
PR: ART 4421C. Advanced problems in various lithographic techniques. Emphasis on individual creative expression. May be repeated.

ART 5472C INTAGLIO
PR: ART 4471C. Investigations into more complex intaglio processes including photoengraving and color printing procedures. Emphasis on personal conceptual development in graphic media. May be repeated.

ART 5520C PAINTING
PR: ART 4520C. Advanced problems in the various painting techniques. Emphasis on individual creative expression. May be repeated.

ART 5730C SCULPTURE
PR: ART 4702C. Advanced problems in the various techniques of sculpture. Emphasis on individual creative expression. May be repeated.

ART 5707 GALLERY AND MUSEUM INTERNSHIP
By working in Bay area museums or galleries students will become familiar with various museological operations. Internships vary owing to the work at hand in particular museums, but possible areas of work include registration, installation, conservation, writing of grants or museum education. (Students are eligible after completing one semester in the program.) May be repeated up to 8 credit hours.

ART 5910 RESEARCH
PR: CC. May be repeated.

ART 5936 STUDIO TECHNIQUES: SELECTED PROJECTS
PR: Visual Concepts I, II and Introduction to Art, the topic/technique-related 3000-4000 level studio sequence and Cl. Concentration in specialized technical data and process. May be repeated for credit for different topics only.

FIL 3001 FILM: THE LANGUAGE OF VISION-6A
Open to both majors and non-majors. Exploration of the history of creative filmmaking from its beginnings to the present time. May not be repeated.

PGY 3410C PHOTOGRAPHY I
PR: Visual Concepts I and Introduction to Art. Intermediate problems in photography with emphasis on the exploration of materials and media and the development of individual concepts.

PGY 3510C CINEMATOGRAPHY I
PR: Visual Concepts I and Introduction to Art. Intermediate problems in cinematography with emphasis on the exploration of materials and media and the development of individual concepts.

PGY 4110C PHOTOGRAPHY
PR: Cl. Advanced work in photography and related media leading to development of personal/expressive statements. May be repeated.

PGY 4410C PHOTOGRAPHY II
PR: PGY 3410C. Continued problems in photography. May be repeated.

PGY 4520C CINEMATOGRAPHY II
PR: PGY 3510C. Continued problems in cinematography. May be repeated.

PGY 4550C SOUND TECHNIQUES
PR: PGY 3510C. The recording and editing of sound for film. Collaboration with other departments, particularly Music and Theatre, is encouraged. To be taken concurrently with PGY 4520C or PGY 5420C whenever possible.

PGY 5530C CINEMATOGRAPHY
PR: PGY 4520C. Advanced studio work using black and white, color and sound as technical and aesthetic factors in visual, artistic productions. May be repeated.

**DANCE**

DAA 2000 THEATRE DANCE STYLES
PR: DAA 2100 or DAA 2200 or Cl. Development of technical skills in social and historical dance forms frequently stylized for use by dance choreographers. Forms to be studied will include polka, clogging, waltz, folk, tap dancing, etc. May be repeated up to 4 credit hours.

DAA 2100 FUNDAMENTALS OF MODERN DANCE I
To acquaint beginning modern dance students with fundamentals of dance vocabulary, movement, rhythm and alignment. May be repeated.

DAA 2104 MODERN DANCE II
PR: Admission by 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.

DAA 2200 FUNDAMENTALS OF BALLET I
To acquaint beginning ballet dance students with fundamentals of vocabulary, movement, rhythm and alignment.

DAA 2204 BALLET II
PR: Admission by placement audition. Positions and barre exercises. Emphasis on correct alignment of the body and the application of simple step combinations in centre work. The use of ballet vocabulary (French terms). Material is covered almost totally as practical work in class with a few outside projects. Concert and performance attendance required. May be repeated.

DAA 2500 FUNDAMENTALS OF JAZZ DANCE
A basic movement course in Jazz Dance involving dance vocabulary, alignment, style, and simple rhythmic movement patterns. May be repeated up to 4 credit hours.
### DAA 3105 MODERN DANCE III (3-4)
PR: Admission by placement audition. Continuation of DAA 2104. Further emphasis on style and phrasing. Work in projecting mood and quality by dancing and rehearsing in more advanced choreography, leading to performance. May be repeated.

### DAA 3205 BALLET III (3-4)

### DAA 3206 BALLET IV (4)
PR: Admission by placement audition. Perfecting the execution of barre work. Intensification of centre work. More stress on aesthetic quality of movement and phrasing. Students expected to be proficient in pointe work. Outside projects, concerts, and performances are required. May be repeated.

### DAA 4106 MODERN DANCE IV (4)
PR: Admission by placement audition or CI. Intensive work on the growth of personal performance styles. Equal emphasis will be given to training the body in the development of technical excellence. May be repeated.

### DAA 4205 BALLET IV (4)
PR: Admission by placement audition or CI. Work directed toward duets and group dances. The students will submit choreographic ideas for instructor's approval, then proceed with rehearsals. Lec-lab., reading. Rehearsal hours to be arranged. May be repeated.

### DAA 4702 CHEOREOGRAPHY III (2)
PR: DAA 3701 or CI. Work directed toward duets and group dances. The students will submit choreographic ideas for instructor's approval, then proceed with rehearsals. Lec-lab., reading. Rehearsal hours to be arranged. May be repeated.

### DAA 4705 CHEOREOGRAPHY IV (2)
PR: DAA 4702. The student will prepare studies based on free form, minimal art, and chance methods. Lec-lab., reading. May be repeated.

### DAA 4706 CHEOREOGRAPHY V (3)
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 4820 DANCE STUDIES (1-4)
PR: CI and CC. Dance Major status. Individual study to extended competency in technique and performance of Dance through participation in special workshops. May be repeated up to 4 credit hours.

### DAE 4300 THE TEACHING OF DANCE: THEORY AND PRACTICE (3)
PR: CI, CC. Designed to provide prospective dance teachers with opportunities to develop concepts of pedagogy based on principles of teaching - learning in dance techniques and choreography. For majors and non-majors. May be repeated up to 9 credit hours.

### DAN 2100 INTRODUCTION TO DANCE - 6A (3)
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 (70%), and movement experience (30%). Applies toward meeting: Gordon Rule; General Distribution or Special 6 hr. College of Fine Arts Requirement.

### DAN 2610 MUSIC FOR DANCE I (2)
Development of practical music skills in relation to dance. Emphasis on rhythm and the relationship of music forms to dance. May be repeated up to 4 credit hours.

### DAN 2611 MUSIC FOR DANCE II (2)
PR: DAN 2610 or CI. Elements within historical context. Continued problems in rhythmic materials.

### DAN 3500 PRACTICUM IN DANCE PRODUCTION I (1-2)
A practicum in mounting dance concerts with shop work and backstage participation. Intended for students working in costuming, 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 4111 SURVEY HISTORY OF DANCE - 6A (3)
Survey history of dance. Study of development of dance from its inception through 18th Century. Social and theatrical dance forms, Ethnic Dance included.

### DAN 4112 19TH AND 20TH CENTURY DANCE (3)
Survey history of dance. Study of development of dance from 19th Century through 20th Century. Theatrical and other expressive forms included. Reading, lecture and visual aids.

### DAN 4170 DANCE SENIOR SEMINAR (2)
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 4905 DIRECTED READING (2)
PR: CI and CC. Readings in topic of special interest to the student. Selection of topic and materials must be agreed upon and appropriate credit must be assigned prior to registration. A contract with all necessary signatures is required for registration. May be repeated for credit for different topics only.

### DAN 4906 DIRECTED STUDY (1-5)
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.

### DAN 4930 SELECTED TOPICS IN DANCE (1-5)
PR: CI and CC. Content of the course will be governed by student demand and instructor interest. May be repeated for credit for different topics only.

### MUSIC

#### MUC 2211 COMPOSITION (3)
PR: MUC 1112 and CI. Private instruction in original composition. Required of composition majors. May be repeated for three semesters.

#### MUC 2301 INTRODUCTION TO ELECTRONIC MUSIC (2)
History and repertoire of electronic music; standard sound studio
techniques; basic electronics as applied in electronic sound synthesis; mathematics for music, composition and electronic music.

MUC 3202 COMPOSITION (3)
PR: Necessary competency at MUC 2201 level determined by faculty jury. Private instruction in original composition. Required of composition majors. May be repeated for three semesters.

MUC 3401, 3402 ELECTRONIC MUSIC-ANALOG SYNTHESIS (3,3)
PR: MUC 2301 and Cl. Composition for tape medium with analog synthesizers; use of sound recording studio; repertoire or analog music synthesis; technical basis of analog systems design and construction.

MUC 3441, 3442 ELECTRONIC MUSIC-DIGITAL SYNTHESIS (3,3)
Computer assisted composition for conventional instruments; composition for tape medium with computer controlled analog synthesizers; direct digital synthesis; digital systems design and construction.

MUC 3601, 3602 CONTEMPORARY TECHNIQUES OF COMPOSITION (3,3)
PR: Cl. Instruction in the use of major Twentieth-Century compositional techniques; tonal unordered set, and serial composition and the use of indeterminacy in composition and performance.

MUG 4201 COMPOSITION (3)
PR: Necessary competency at MUC 3202 level determined by faculty jury. Private instruction in original composition. Required of composition majors. Must be repeated for credit for a minimum of 6 hours for majors.

MUC 4403, 4404 (formerly MUC 4405, 4406) ELECTRONIC MUSIC-REAL-TIME PERFORMANCE (3,3)
PR: MUC 3402 and MUC 3442 or equivalent. Composition for analog/digital equipment, performance applications; sound synthesis, interfacing electronics with conventional instruments.

MUC 4501 SEMINAR IN NEW MUSICAL SYSTEMS (3)
PR: Cl. Experimental sound sources and ensemble groupings; creation of new instruments; unfamiliar sonic materials and unique social contexts for music. May be repeated for credit.

MUG 3101 BASIC CONDUCTING (2)
PR: Cl. The study and practical application of basic conducting techniques. Development of skills related to the conducting of musical scores.

MUG 4202 (formerly MUG 4201) CHORAL CONDUCTING (2)
PR: MUG 3101 or its equivalent and Cl. Practical application of conducting techniques to choral works, score study, performance practices, and rehearsal techniques. Class serves as performance group.

MUG 4302 (formerly MUG 4301) INSTRUMENTAL CONDUCTING (2)
PR: MUG 3101 & Cl. A study of those techniques of conducting unique to instrumental music ensembles: baton technique, score reading, terminology, rehearsal management.

MUH 3019 HISTORY OF POPULAR MUSIC (2)
Popular music in the U.S. from 1820 to present. Units on the big band era, country and western, jazz, Black music, and the rock scene beginning in 1955. May be used for University General Distribution Requirements and may be used to satisfy part of the 6 hours In-College Requirement for Fine Arts majors in Art, Dance, Theatre and as a music elective.

MUH 4801 HISTORY OF JAZZ (3)
PR: MUT 1112 or Cl. An in-depth study of the historical development of Jazz, including the representative musical literature and sociological implications.

MUH 3300 MUSIC HISTORY / MEDIEVAL AND RENAISSANCE (2)
PR: Cl. Required of music majors; a study of the historical development of musical styles of the Medieval and Renaissance periods and of the music of those periods.

MUH 3301 MUSIC HISTORY / BAROQUE AND CLASSIC (3)
PR: Cl. Required of music majors; 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 (3)
PR: Cl. Required of music majors; a study of the historical development of musical styles of the Romantic and 20th Century periods and of the music of those periods.

MUL 2111 INTRODUCTION TO MUSIC LITERATURE - 6A (3)
PR: MUL 2212 or Cl. 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 (2)
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. This course is also available on WUSF/TV Channel 16 by the O. U. Program. (S/U only.)

MUL 3011, 3012 THE ENJOYMENT OF MUSIC (3,3)
Open only to non-music majors; a study in the art of music and its materials, designed to develop an understanding of basic principles of music and a technique for listening to music.

MAJOR PERFORMING ENSEMBLES (below)
PR: Cl. 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. May be repeated for credit.

MUN 2120 UNIVERSITY BAND (1)
MUN 3140 WIND ENSEMBLE (1)
MUN 3210 UNIVERSITY ORCHESTRA (1)
MUN 3310 UNIVERSITY SINGERS (1)
MUN 3380 UNIVERSITY-COMMUNITY CHORUS (1)
MUN 3450 (formerly MUN 3451) PIANO ENSEMBLE (1)
MUN 3710 JAZZ ENSEMBLE (1)
MUO 3501 OPERA WORKSHOP (1)

CHAMBER MUSIC ENSEMBLES (below)
PR: Cl. Open to all university students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass, or percussion instruments, and piano; may be repeated for credit.

MUN 3340 CHAMBER SINGERS (1)
MUN 3411 STRING QUARTET (1)
MUN 3420 SAXOPHONE ENSEMBLE (1)
MUN 3421 FLUTE CHOIR (1)
MUN 3424 WOODWIND QUINTET (1)
MUN 3430 BRASS CHOIR (1)
MUN 3432 HORN QUARTET (1)
MUN 3431 (formerly MUN 3436) BRASS QUINTET (1)
MUN 3440 PERCUSSION ENSEMBLE (1)
MUN 3441 MARIMBA ENSEMBLE (1)
MUN 3470 COLLEGIUM MUSICUM (1)
MUN 3711 JAZZ CHAMBER ENSEMBLE (1)
MUN 3492 CLASSICAL GUITAR ENSEMBLE (1)
MUS 3001 RECITAL ATTENDANCE (0)
This course is required whenever a student registers for applied music. This requirement for the successful completion of the course is attendance at ten (10) department-approved recitals/concerts throughout the semester. (S/U Grading only.)

MUS 4900 DIRECTED READING (1-3)
PR: Cl and CC. Readings in topic of special interest to the student. Selection of topic and materials must be agreed upon and appropriate credit must be assigned prior to registration. A contract with all necessary signatures is required for registration. May be repeated for credit for different topics only.

MUS 4902 DIRECTED STUDY (1-4)
PR: CC. Independent studies in the various areas of music; course of study and credits must be assigned prior to registration; may be repeated.

MUS 3490 NEW MUSIC ENSEMBLE (1)
MUS 4993 SELECTED TOPICS IN MUSIC (1-4)
PR: Cl and CC. The content of the course will be governed by student demand and instructor interest. May be repeated for credit
MUS 4931 SELECTED STUDIO TOPICS IN MUSIC (1-4) 
PR: CL. The content of the study will be governed by individual student demand and instructor interest with an emphasis on individual instruction.

MUS 4935 MUSIC SENIOR SEMINAR (1) 
PR: CL. To aid majors to understand, appraise and perfect their own art through critical and aesthetic judgments of their colleagues. (S/U only.)

MUS 5905 DIRECTED STUDY (1-4) 
PR: CC. Independent studies in the various areas of music; course of study and credits must be assigned prior to registration; may be repeated.

MUT 1111, 1112 MUSIC THEORY (3,3) 
PR: CL. Required of music majors; development of skills in perceiving and writing music through the use of aural and visual analysis. Arrangement of the course is governed by individual students' needs.

MUT 1214, 1242 AURAL THEORY (1,1) 
PR: CL. Course designed to begin training in aural recognition and vocal realization of materials used in music composition. Includes rhythmic, melodic and harmonic dictation, and sight singing. To be taken concurrently with MUT 1111, 1112.

MUT 2116, 2117 MUSIC THEORY (3,3) 
PR: MUT 1112. Required of music majors, continuation of MUT 1111 and 1112.

MUT 2246, 2247 ADVANCED AURAL THEORY (1,1) 
PR: MUT 1242. Course designed to continue training in aural recognition and vocal realization of materials used in music composition. Includes rhythmic, melodic and harmonic dictation, and sight singing. To be taken concurrently with MUT 2116, 2117.

MUT 3353 JAZZ COMPOSITION AND ARRANGING I (3) 
PR: MUT 1112 and CL. Course designed to develop arranging and/or compositional skills in the jazz idiom through the study of jazz orchestration, harmonic, and melodic practices.

MUT 3354 JAZZ COMPOSITION AND ARRANGING II (3) 
PR: MUT 1112 and CL. Course designed to develop arranging and/or compositional skills in the jazz idiom through the study of jazz orchestration, harmonic and melodic practices.

MUT 3641 JAZZ THEORY AND IMPROVISATION (2) 
PR: MUT 1112 and/or CL. A study of jazz improvisational techniques related to jazz theory.

MUT 3642 JAZZ THEORY AND IMPROVISATION II (2) 
PR: MUT 3641 or CL. A study of jazz improvisational techniques and related jazz theory.

MUT 3663 JAZZ STYLES AND ANALYSIS I (2) 
PR: MUT 3642 or CL. A studio course study of the improvised solos of the major innovators in jazz. Oriented toward the continuing development of the students own soloing ability. Students are required to enroll in Jazz Chamber Ensemble as a lab. Open to majors and non-majors.

MUT 3664 JAZZ STYLES AND ANALYSIS II (2) 
PR: Jazz Styles and Analysis I or CL. A continuation of Jazz Styles and Analysis I with the emphasis on contemporary jazz artists. Students are required to enroll in Jazz Chamber Ensemble as a lab. Open to majors and non-majors.

MUT 4311, 4312 ORCHESTRATION (2,2) 
PR: CL. Intensive study and practice in scoring music for various combinations of instruments, including symphony orchestra, band, and smaller ensembles of string, woodwind, brass, and percussion instruments.

MUT 4411 SIXTEENTH CENTURY PRACTICE (3) 
PR: MUT 2117. A study of the music of the 16th century from a theoretical standpoint; development of skills in perceiving and writing music in the style of the period through the use of aural and visual analysis.

MUT 4421 EIGHTEENTH CENTURY PRACTICE (3) 
PR: MUT 2117. An intensive study of the contrapuntal practice of the 18th century; development of skills in perceiving and writing music in the style of the period through the use of aural and visual analysis.

MUT 4571 TWENTIETH CENTURY PRACTICE (3) 
PR: MUT 2117. A study of 20th century theoretical concepts; development of skills in perceiving and writing music in contemporary styles through the use of aural and visual analysis.

MUT 5051 GRADUATE REVIEW OF MUSIC THEORY (1-4) 
A graduate level review of basic theoretical concepts with emphasis on the common practice period. The course serves to satisfy deficiencies in music theory and as such does not count toward the graduate degree requirements.

MVJ 2000 FOREIGN LANGUAGE DICTION FOR SINGERS (2) 
Required of, but not limited to all voice majors in the Bachelor of Music program. A one semester course covering singing diction in French, German and Italian. Should be completed in the Freshman or Sophomore year of voice.

SECONDARY APPLIED MUSIC COURSES (below) 
PR: CL. One half-hour private lesson or one hour class per week for music students wishing to gain proficiency in an other area than their applied performance major and for a limited number of nonmusic majors who have had prior musical training. Course is open by audition only.

MVJ 1211 APPLIED TRUMPET (1) 
MVJ 1212 APPLIED FRENCH HORN (1) 
MVJ 1213 APPLIED TROMBONE (1) 
MVJ 1214 APPLIED BARITONE (1) 
MVJ 1215 APPLIED TUBA (1) 
MVJ 1213 APPLIED JAZZ GUITAR (1) 
MVJ 1214 APPLIED JAZZ BASS (1) 
MVK 1211 APPLIED PIANO (1) 
MVP 1211 APPLIED PERCUSSION (1) 
MVS 1211 APPLIED VIOLIN (1) 
MVS 1212 APPLIED VIOLA (1) 
MVS 1213 APPLIED VIOLONCELLO (1) 
MVS 1214 APPLIED DOUBLE BASS (1) 
MVS 1215 APPLIED HARP (1) 
MVS 1216 APPLIED CLASSICAL GUITAR (1) 
MVK 1211 APPLIED PIANO (1) 
MVW 1212 APPLIED OBEO (1) 
MVW 1213 APPLIED CLARINET (1) 
MVW 1214 APPLIED BASSOON (1) 
MVW 1215 APPLIED SAXOPHONE (1)

CLASS PIANO COURSES (below) 
PR: CL. Class is elementary piano and music fundamentals designed for students with limited keyboard experience. Primary emphasis is placed on sight-reading, accompanying, transposition, harmonization, basic technique, and appropriate literature.

MVK 1111 KEYBOARD SKILLS I (2) 
MVK 1121 KEYBOARD SKILLS II (2) 
MVK 2111 KEYBOARD SKILLS III (2) 
MVK 2121 KEYBOARD SKILLS IV (2) 
MVK 3111 MUSIC MAJORS, LEVEL V (2) 
MVK 1811 BEGINNING PIANO I (2) 
MVK 1821 BEGINNING PIANO II (2) 
MVK 2811 INTERMEDIATE PIANO (2) 
MVK 2821 INTERMEDIATE PIANO (2) 

APPLIED MUSIC COURSES PRINCIPAL (below) 
PR: CL. Required of all music education and composition majors; open to a limited number of non-music majors by audition only.
Private and class instruction in string, woodwind, and percussion instruments, voice and piano. May be repeated for credit.
Applied music courses are NOT available on S/U basis.

MVB 1311 TRUMPET PRINCIPAL
MVB 1312 FRENCH HORN PRINCIPAL
MVB 1313 TROMBONE PRINCIPAL
MVB 1314 EUPHONIUM PRINCIPAL
MVB 1315 TUBA PRINCIPAL
MVJ 1313 JAZZ GUITAR PRINCIPAL
MVJ 1314 JAZZ BASS PRINCIPAL
MVK 1311 PIANO PRINCIPAL
MVK 1313 ORGAN PRINCIPAL
MVP 1311 PERCUSSION PRINCIPAL
MVS 1311 VIOLIN PRINCIPAL
MVS 1312 VIOLA PRINCIPAL
MVS 1313 VIOLONCELLO PRINCIPAL
MVS 1314 DOUBLE BASS PRINCIPAL
MVS 1315 HARP PRINCIPAL
MVS 1316 CLASSICAL GUITAR PRINCIPAL
MW 1311 VOICE PRINCIPAL
MW 1313 FLUTE PRINCIPAL
MW 1312 OBOE PRINCIPAL
MW 1313 CLARINET PRINCIPAL
MW 1314 BASSOON PRINCIPAL
MW 1315 SAXOPHONE PRINCIPAL

APPLIED MUSIC COURSES PRINCIPAL

PR: CI. Required of all music education and composition majors; open to a limited number of non-music majors by audition only. Private and class instruction in string, woodwind, brass, and percussion instruments, voice and piano. May be repeated for credit. Applied music courses are NOT available on S/U basis.

MVB 2321 TRUMPET PRINCIPAL
MVB 2322 FRENCH HORN PRINCIPAL
MVB 2323 TROMBONE PRINCIPAL
MVB 2324 EUPHONIUM PRINCIPAL
MVB 2325 TUBA PRINCIPAL
MVJ 2323 JAZZ GUITAR PRINCIPAL
MVJ 2324 JAZZ BASS PRINCIPAL
MVK 2321 PIANO PRINCIPAL
MVK 2323 ORGAN PRINCIPAL
MVP 2321 PERCUSSION PRINCIPAL
MVS 2321 VIOLIN PRINCIPAL
MVS 2322 VIOLA PRINCIPAL
MVS 2323 VIOLONCELLO PRINCIPAL
MVS 2324 DOUBLE BASS PRINCIPAL
MVS 2325 HARP PRINCIPAL
MVS 2326 CLASSICAL GUITAR PRINCIPAL
MW 2321 VOICE PRINCIPAL
MW 2321 FLUTE PRINCIPAL
MW 2322 OBOE PRINCIPAL
MVW 2323 CLARINET PRINCIPAL
MVW 2324 BASSOON PRINCIPAL
MW 2325 SAXOPHONE PRINCIPAL

APPLIED MUSIC COURSES PRINCIPAL

PR: CI. Required of all music education and composition majors; open to a limited number of non-music majors by audition only. Private and class instruction in string, woodwind, brass, and percussion instruments, voice and piano. May be repeated for credit. Applied music courses are NOT available on S/U basis.

MVB 3321 TRUMPET MAJOR
MVB 3322 FRENCH HORN MAJOR
MVB 3323 TROMBONE MAJOR
MVB 3324 EUPHONIUM MAJOR
MVB 3325 TUBA MAJOR
MVJ 3323 JAZZ GUITAR MAJOR
MVJ 3324 JAZZ BASS MAJOR
MVK 3321 PIANO MAJOR
MVK 3323 ORGAN MAJOR
MVP 3321 PERCUSSION MAJOR
MVS 3321 VIOLIN MAJOR
MVS 3322 VIOLA MAJOR
MVS 3323 VIOLONCELLO MAJOR
MVS 3324 DOUBLE BASS MAJOR
MVS 3325 HARP MAJOR
MVS 3326 CLASSICAL GUITAR MAJOR
MVB 3321 FLUTE MAJOR
MWB 3321 OBOE MAJOR

MVW 3323 APPLIED MUSIC COURSES PRINCIPAL

PR: CI. Required of all music education and composition majors; open to a limited number of non-music majors by audition only. Private and class instruction in string, woodwind, brass, and percussion instruments, voice and piano. May be repeated for credit. Applied music courses are NOT available on S/U basis.

MVB 4321 TRUMPET MAJOR
MVB 4322 FRENCH HORN MAJOR
MVB 4323 TROMBONE MAJOR
MVB 4324 EUPHONIUM MAJOR
MVB 4325 TUBA MAJOR
MVJ 4321 JAZZ GUITAR MAJOR
MVJ 4322 JAZZ BASS MAJOR
MVK 4321 PIANO MAJOR
MVK 4323 ORGAN MAJOR
MVP 4321 PERCUSSION MAJOR
MVS 4321 VIOLIN MAJOR
MVS 4322 VIOLA MAJOR
MVS 4323 VIOLONCELLO MAJOR
MVS 4324 DOUBLE BASS MAJOR
MVS 4325 HARP MAJOR
MVS 4326 CLASSICAL GUITAR MAJOR
MW 4321 VOICE MAJOR
MW 4321 FLUTE MAJOR
MW 4322 OBOE MAJOR
MVW 4323 CLARINET MAJOR
MVW 4324 BASSOON MAJOR
MW 4325 SAXOPHONE MAJOR

APPLIED MUSIC COURSES

PR: CI. Required of all applied music majors; open to a limited number of non-music majors by audition only. Private and class instruction in string, woodwind, brass and percussion instruments, voice and piano. May be repeated for credit.

MVB 1411 TRUMPET MAJOR
MVB 1412 FRENCH HORN MAJOR
MVB 1413 TROMBONE MAJOR
MVB 1414 EUPHONIUM MAJOR
MVB 1415 TUBA MAJOR
MVJ 1413 JAZZ GUITAR MAJOR
MVJ 1414 JAZZ BASS MAJOR
MVK 1411 PIANO MAJOR
MVK 1413 ORGAN MAJOR
MVP 1411 PERCUSSION MAJOR
MVS 1411 VIOLIN MAJOR
MVS 1412 VIOLA MAJOR
MVS 1413 CELLO MAJOR
MVS 1414 DOUBLE BASS MAJOR
MVS 1415 HARP MAJOR
MVS 1416 CLASSICAL GUITAR MAJOR
MVK 1411 VOICE MAJOR
MW 1411 FLUTE MAJOR
MW 1412 OBOE MAJOR
MWB 1413 CLARINET MAJOR (4)
MWB 1414 BASSOON MAJOR (4)
MWB 1415 SAXOPHONE MAJOR (4)

APPLIED MUSIC COURSES (below)
PR: Necessary competency at sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction in string, woodwind, brass, and percussion instruments, voice and piano. May be repeated for credit three semesters only.

MVB 2421 TRUMPET MAJOR (4)
MVB 2422 FRENCH HORN MAJOR (4)
MVB 2423 TROMBONE MAJOR (4)
MVB 2424 EUPHONIUM MAJOR (4)
MVB 2425 TUBA MAJOR (4)
MJB 2423 JAZZ GUITAR MAJOR (4)
MJB 2424 JAZZ BASS MAJOR (4)
MKW 2421 PIANO MAJOR (4)
MKW 2423 ORGAN MAJOR (4)
MWP 2421 PERCUSSION MAJOR (4)
MVS 2421 VIOLIN MAJOR (4)
MVS 2422 VIOLA MAJOR (4)
MVS 2423 CELLO MAJOR (4)
MVS 2424 DOUBLE BASS MAJOR (4)
MVS 2425 HARP MAJOR (4)
MVS 2426 CLASSICAL GUITAR MAJOR (4)
MVB 2421 VOICE MAJOR (4)
MVB 2421 FLUTE MAJOR (4)
MWB 2420 OBOE MAJOR (4)
MWB 2423 CLARINET MAJOR (4)
MWB 2424 BASSOON MAJOR (4)
MWB 2425 SAXOPHONE MAJOR (4)

APPLIED MUSIC COURSES (below)
PR: Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction in string, woodwind, brass and percussion instruments, voice and piano. May be repeated for credit three semesters only.

MVB 3431 TRUMPET MAJOR (4)
MVB 3432 FRENCH HORN MAJOR (4)
MVB 3433 TROMBONE MAJOR (4)
MVB 3434 EUPHONIUM MAJOR (4)
MVB 3435 TUBA MAJOR (4)
MVJ 3433 JAZZ GUITAR MAJOR (4)
MVJ 3434 JAZZ GUITAR MAJOR (4)
MKV 3431 PIANO MAJOR (4)
MKV 3433 ORGAN MAJOR (4)
MVP 3431 PERCUSSION MAJOR (4)
MVS 3431 VIOLIN MAJOR (4)
MVS 3432 VIOLA MAJOR (4)
MVS 3433 CELLO MAJOR (4)
MVS 3434 DOUBLE BASS MAJOR (4)
MVS 3435 HARP MAJOR (4)
MVS 3436 CLASSICAL GUITAR MAJOR (4)
MVV 3431 VOICE MAJOR (4)
MVV 3431 FLUTE MAJOR (4)
MMW 3432 OBOE MAJOR (4)
MMW 3433 CLARINET MAJOR (4)
MMW 3434 BASSOON MAJOR (4)
MMW 3435 SAXOPHONE MAJOR (4)

MUSIC STUDIO PEDAGOGY COURSES (below)
PR: Necessary competency determination 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. May be repeated for credit for a maximum of 4 hours for the same section.

MVB 4441 PIANO MAJOR (4)
MVB 4442 VIOLA MAJOR (4)
MVB 4443 CELLO MAJOR (4)
MVB 4444 DOUBLE BASS MAJOR (4)
MVB 4445 HARP MAJOR (4)
MVB 4446 CLASSICAL GUITAR MAJOR (4)
MVB 4441 VOICE MAJOR (4)
MVB 4441 FLUTE MAJOR (4)
MVB 4442 OBOE MAJOR (4)
MVB 4443 CLARINET MAJOR (4)
MVB 4444 BASSOON MAJOR (4)
MVB 4445 SAXOPHONE MAJOR (4)

MUSIC EDUCATION

MUE 2090 THEORETICAL BASES OF MUSIC EDUCATION (1)
The course is designed to investigate music education practices in the schools. It provides the student with experience and information early in his academic career which will enable him to determine his commitment to professional music education.

MUE 3421 CHORAL MATERIALS PRACTICUM (1)
PR: CI. A study of choral materials in a laboratory setting appropriate to elementary and secondary school music programs. Course content will change each semester. May be repeated for a total of 2 credit hours.

MUE 3422 BAND MATERIALS PRACTICUM (1)
PR: CI. A study of band materials in a laboratory setting appropriate to elementary and secondary school music programs. Course content will change each semester. May be repeated for a total of 2 credit hours.

MUE 3423 ORCHESTRA MATERIALS PRACTICUM (1)
PR: CI. A study of orchestra materials in a laboratory setting, appropriate to elementary and secondary school music programs. Course content will change each semester. May be repeated for a total of 2 credit hours.

MUE 3450 BEGINNING WOODWIND TECHNIQUES (1)
PR: Sophomore standing, non-woodwind major. The course introduces the fundamentals of woodwind instrument pedagogy. In addition basic techniques of woodwind performance are taught through the study of clarinet and flute.

MUE 3451 ADVANCED WOODWIND TECHNIQUES (1)
PR: Sophomore standing, woodwind instrument major or MUE 3450. The course develops knowledge and skills dealing with advanced principles of teaching and performing on woodwind instruments.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUE 3460</td>
<td>BEGINNING BRASS TECHNIQUES</td>
<td>Sophomore standing, non-brass major. 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.</td>
</tr>
<tr>
<td>MUE 3461</td>
<td>ADVANCED BRASS TECHNIQUES</td>
<td>Sophomore standing, brass instrument major or MUE 3460. The course develops knowledge and skills dealing with advanced principles of teaching and performing on all brass instruments.</td>
</tr>
<tr>
<td>MUE 4210</td>
<td>MUSIC FOR THE CHILD</td>
<td>Admission to the College of Education. Music fundamentals, the development of music skills and knowledge of music materials and teaching strategies for presenting music to children in the elementary school.</td>
</tr>
<tr>
<td>MUE 4311</td>
<td>MUSIC IN THE ELEMENTARY SCHOOL</td>
<td>Cl. A study of principles, techniques, materials, and activities as they relate to a comprehensive music curriculum in Grades K-6.</td>
</tr>
<tr>
<td>MUE 4321</td>
<td>FOUNDATIONS OF CHORAL MUSIC</td>
<td>Development and implementation of methods and techniques for teaching music to the student not participating in secondary school music performing groups.</td>
</tr>
<tr>
<td>MUE 4334</td>
<td>FOUNDATIONS OF INSTRUMENTAL MUSIC</td>
<td>Cl. MUE 3450, MUE 3460, MVP 1211. Junior standing. Introduction to the foundation of instrumental music instruction in the elementary and middle school.</td>
</tr>
<tr>
<td>MUE 4480</td>
<td>MARCHING BAND TECHNIQUES</td>
<td>Junior standing. 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.</td>
</tr>
<tr>
<td>MUE 4905</td>
<td>INDEPENDENT STUDY: MUSIC EDUCATION</td>
<td>Cl. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only).</td>
</tr>
<tr>
<td>MUE 4909</td>
<td>DIRECTED STUDY: MUSIC EDUCATION</td>
<td>Senior standing. To extend competency in teaching field. Offered only as a scheduled class.</td>
</tr>
<tr>
<td>MUE 4940</td>
<td>INTERNSHIP: MUSIC EDUCATION</td>
<td>One full semester of internship in a public or private school. Intern takes Senior Seminar in Education concurrently. 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. (S/U only.)</td>
</tr>
<tr>
<td>MUE 4941</td>
<td>INTERNSHIP</td>
<td>Part-time internship in an accredited public or private school. To be taken concurrently with departmental requirements and will include beginning of the year experiences when taken in Fall Semester. (S/U only.)</td>
</tr>
<tr>
<td>MUE 4942</td>
<td>INTERNSHIP</td>
<td>Admission to the College of Education and/or departmental approval. Internship in an accredited public or private school which will include the end of the academic year or program closing. (S/U only.)</td>
</tr>
</tbody>
</table>

**THEATRE**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE 2020</td>
<td>THE 2020 THEATRE FUNDAMENTALS</td>
<td>An introduction to the means and materials of theatre, the nature of theatre forms, the concepts of Total Theatre, and the basic issues in American theatre today. This course open to non-majors and theatre majors should take this course concurrently with their first registration in the group of courses TPA 2200, TPA 2223, TPA 2232, TPP 2110. Required of all theatre majors.</td>
</tr>
<tr>
<td>THE 3080</td>
<td>MODERN THEATRE PRACTICE-6A</td>
<td>Initial readings and exercises in theatre; play analysis, performance, and technical theatre for non-theatre majors.</td>
</tr>
<tr>
<td>THE 3110</td>
<td>THEATRE HISTORY</td>
<td>A survey of all facets of theatrical performance in selected periods of theatre history from the 5th Century B.C. to the present. Normally ten plays will be read. Required of all theatre majors. Open to non-majors.</td>
</tr>
<tr>
<td>THE 3225</td>
<td>PRODUCTION INVOLVEMENT</td>
<td>The rehearsal, construction, production of major theatrical works. THE 4927 or this course is required of all majors and minors. Assignments are made contractually at the time of registration. Open to non-majors on a credit or noncredit basis. May be repeated.</td>
</tr>
<tr>
<td>THE 4264</td>
<td>HISTORY OF COSTUME</td>
<td>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.) Open to upper level non-majors with Cl.</td>
</tr>
<tr>
<td>THE 4266</td>
<td>ARCHITECTURE AND DECOR</td>
<td>The survey of architectural and furniture from ancient Egypt to the 20th Century. (A requirement in the design track/scenic.) Open to upper level non-majors with Cl.</td>
</tr>
<tr>
<td>THE 4320</td>
<td>THE THEATRE OF MYTH AND RITUAL/NORTHERN EUROPE (950-1600) AND ORIENTAL (400-1200)</td>
<td>An investigation into the interrelationship of myth, ritual, and liturgy. Focus on what attempts to understand the resulting phenomena can teach us about the nature of our art. Either THE 4180 or THE 4562 is required of all theatre majors. Open to senior non-majors with Cl.</td>
</tr>
<tr>
<td>THE 4330</td>
<td>SHAKESPEARE FOR THE THEATRE</td>
<td>A close study of selected plays with special emphasis on their performance values. Open to non-majors with Cl.</td>
</tr>
<tr>
<td>THE 4370</td>
<td>THE 19TH CENTURY THEATRE REVOLUTION</td>
<td>Survey of the European art theatre revolution against the romantic realism of the commercial stage and its effect on subsequent theatre activity. Open to non-majors with Cl.</td>
</tr>
<tr>
<td>THE 4400</td>
<td>O'NEILL AND AFTER</td>
<td>Senior standing. An analysis of the script for the theatre artist treating materials in the American Theatre from 1915 to 1964. Open to non-majors with Cl.</td>
</tr>
<tr>
<td>THE 4442</td>
<td>THE COMEDY OF THE CLASSIC AND NEO-CLASSIC STAGE</td>
<td>A study of comedic function in scripts from Greek and Roman, Restoration and French Neoclassic of the late 17th century and other plays from the late 18th and late 19th centuries which reflect similar characteristics. Open to non-majors with Cl.</td>
</tr>
<tr>
<td>THE 4480</td>
<td>DRAMA-SPECIAL TOPICS</td>
<td>Study of a significant playwright or grouping of playwrights, e.g. Moliere, Brecht, recent American dramatists. Open to non-majors with Cl.</td>
</tr>
</tbody>
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| THE 4562   | SENIOR COLLOQUIUM IN THEATRICAL CREATIVITY                       | A colloquium in the nature of the theatre. Either THE 187
TPA 3260 SOUND FOR THE STAGE
PR: TPA 2223. Basic study of audio components, fundamental properties of sound, multiple channel recording, editing, reproduction and reinforcement. Methods and techniques used in theatre to create sound effects. Open to non-majors. Lecture and Laboratory.

TPA 3601 STAGE MANAGEMENT
PR: TPA 2200, TPA 2223, or TPA 2232. A practical course in the working organizational function of the stage manager in theatre, dance, opera, and other live performance situations. Open to non-majors with CI.

TPA 3810 INTRODUCTION TO PUPPETRY
PR: Completion of the four required 2000 level courses. Principles and methods of puppetry with a historical survey of major forms and practical problems with laboratory production. Open to non-majors with CI.

TPA 3840 PUPPETRY PERFORMANCE AND PRODUCTION
PR: TPA 3810. The creation, building, rehearsal, and performance of plays for puppet theatre. May be repeated one time for additional elective credit, with CI, to total of 8 hours. Open to non-majors with CI.

TPA 4020 LIGHT DESIGN
PR: ART 3301C, TPA 3221, TPA 4211 and portfolio review. The aesthetic and practical application of the elements of design in lighting for theatre presentation. A requirement in the design track/lighting.

TPA 4040 COSTUME DESIGN
PR: ART 3301C, THE 4264, TPA 2232 and portfolio review. The aesthetic and practical application of the elements of design in costume for theatre presentation. A requirement in the design track/costume.

TPA 4060 SCENE DESIGN
PR: TPA 4211, THE 4266, ART 3301C and portfolio review. The aesthetic and practical application of the elements of design in scenery for theatre presentation. A requirement in the design track/scenic.

TPA 4081 SCENE PAINTING
PR: TPA 3086. A practical course in the painting of stage scenery and application. Open to non-majors with CI.

TPA 4211 STAGECRAFT AND DRAFTING
PR: TPA 3086. A practical course in drafting for the stage, scenic construction and application. A requirement in the design/scenic and lighting.

TPA 4230 COSTUME CONSTRUCTION
PR: TPA 3086, TPA 2232 or CI. A practical course in the drafting of patterns for costuming the actor. Materials, skills, and techniques for construction of costumes and costume accessories will be treated. Included topics are millinery, footwear, jewelry, masks, armor, corsetry; both period and modern.

TPA 4240 STAGE PROPERTIES: TECHNIQUES AND MATERIALS STUDIO
PR: TPA 3086. Demonstration and experience with materials used in construction of stage properties. Modeling of prototypes and basic casting techniques. Organization of shop. Open to non-majors.

TPP 2110 VOICE-BODY-IMPROVISATION
PR: TPA 2223. Intermediate lighting design course concerned with graphic presentations, color theory, design concepts, and practical experience with computer lighting systems. A requirement in the design track/lighting.

TPA 3221 LIGHTING: THEORY AND PRACTICE
PR: TPA 2223. Exploring the elements basic to acting skills, a participation course. Required of all theatre majors. Open to non-majors with CI.

TPP 3111 WORKSHOP FOR TEXT ANALYSIS
PR: Completion of the four required 2000 level theatre courses. The techniques of textual and script analysis related to the composition of performance. Required of all theatre majors. May be taken by nonmajors with TPP 2110 and CI.

TPP 3121 IMPROVISATION I
PR: Completion of the four required 2000 level courses. An intensive study in improvisation as an enhancement of the actor's skills. Exercises and theatre games as flexible forms which accommodate improvisation and physical invention are examined and used to develop group creativity. Open to non-majors with CI.

TPP 3122 IMPROVISATION II
PR: TPP 3121; audition. A concentrated study of advanced tech-
TPP 3235 THEATRE FOR SPECIAL AUDIENCES (3)
PR: Completion of the four required 2000 level courses and/or Cl. The preparation and performance of a production for a special audience (ethnic, children, aged, institutionalized, etc.) With Cl, may be repeated one time as additional elective credit (total of 6 hours). Open to non-majors with Cl.

TPP 3500 BODY DISCIPLINES (2)
PR: Completion of four required 2000 level theatre courses. A laboratory course in various disciplines or systems in controlling and understanding the body's motive powers, with focus on their use for the stage performer. Required of all theatre majors with a performance concentration. Open to upper-level non-majors with Cl. May be repeated for credit.

TPP 3510 SPECIAL SKILLS IN MOVEMENT (2)
PR: TPP 3500. Stage combat, circus and acrobatic techniques, and other special techniques of movement. Repeatable for credit. Open to non-majors with Cl.

TPP 3790L VOICE PREPARATION FOR THE ACTOR (2)
PR: Completion of the four required 2000 level theatre courses. A laboratory in voice production and corrective speech for the actor. Required of all theatre majors with a performance concentration. Open to upper-level non-majors with Cl. May be repeated for credit.

TPP 4140 STYLES OF ACTING (3)
PR: TPP 4150 and audition. Methodology and styles. Examination of the actor's craft and skills needed to fulfill the demands of various theatre forms. Special attention will be paid to the history of acting styles. Required of all theatre majors with a performance concentration.

TPP 4150 SCENE STUDY I (3)
PR: TPP 3111 and audition. Basic scene study. Special problems in movement and speech to be integrated with character development, rehearsal techniques, and performance composition. Required of all theatre majors with a performance concentration.

TPP 4152 SCENE STUDY II (3)
PR: TPP 4150 Intermediate scene study. Required of all theatre majors with a performance concentration.

TPP 4180 ADVANCED SCENE STUDY (3)
PR: TPP 4152, TPP 4140 and audition. The aesthetics of acting. The various theories of art. A studio course. Required of all theatre majors with a performance concentration.

TPP 4220 AUDITION WORKSHOP FOR THE ACTOR (2)
PR: TPP 4150 or Cl. Preparation for professional audition; discussion of professional objectives.

TPP 4230L LABORATORY WORKSHOP IN PERFORMANCE (3)
PR: TPP 4150 and/or Cl. Special workshop in advanced techniques based upon individual problems and needs. May be repeated twice (for a total of 9 hours credit).

TPP 4250 MUSIC THEATRE WORKSHOP (3)
PR: TPP 3111 or Cl. Special problems in acting as applied to the musical theatre with emphasis on singing and dance.

TPP 4310, 4311 DIRECTING I, II (3,3)
PR: TPP 4150. 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 4610 WRITING FOR THE THEATRE (3)
PR: Completion of the first two years as a theatre major or Cl. An elective in writing for the theatre, starting with explorations of theatre as a medium, exercise in theatre form and techniques and progressing to an advanced workshop in plays and other styles of theatre pieces. May be repeated for credit. Open to non-majors with Cl.

TPP 4920 SENIOR WORKSHOP FOR ACTORS (3)
PR: TPP 4180, TPP 3500, TPP 3790L. A workshop in advanced vocal and movement techniques. Required for all theatre majors with a performance concentration.