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 as a Certified Rehabilitation Counselor (CRC). With some additional elective course work and three years experience, graduates are also eligible to take the examination for state licensure as Mental Health counselors.

RELSIGLSTUDEIS (REL)
In Religious Studies, students are afforded a variegated field of study that facilitates an educated person's understanding of his presuppositions on the meaning of life, the nature of the religious-social milieu in which he lives, and the religious dynamic in human history. It also aims toward an understanding of the religious thought and lifestyles of people possessing religious heritages other than the Judeo-Christian heritage.

Majors in Religious Studies will find, in addition, courses designed to give depth in certain areas of religious investigation and supply language tools and critical analysis methods which will prepare them for advanced graduate study.

Requirements for the Baccalaureate Degree
A total of 36 credit hours are required for a major chosen from Religious Studies courses.

Of the 36 hours required for a major in Religious Studies, nine hours may be selected from related courses in other departments, with the prior approval of a departmental advisor.

All Religious Studies Majors are required to take:
1. Two courses in the history and/or literature of the major western religions: e.g., Judaism, Christianity, Islam.
2. Two courses in the history and/or literature of the major religious world religions: e.g., Hinduism, Buddhism, Taoism.
3. REL 4931, Seminar in Religion, 3 hrs.; REL 4939, Development of Religious Studies, 3 hrs.

A student majoring in Religious Studies may not apply towards his major requirements more than nine hours of credit from the directed readings course, REL 3900, or the undergraduate research course, REL 4939.

All transfer students must take a minimum of 24 hours in Religious Studies courses at USF.

Each student's program must be planned with a faculty advisor in Religious Studies.

Requirements for the Minor in Religious Studies
Eighteen (18) credits in Religious Studies courses, including the following: REL 3003, Introduction to Religion; one course, in a major Western religion; one course, in a major Eastern religion; REL 4910, Undergraduate Research, 1 hr., a paper on a topic approved by the Department Chairperson, and supervised by an assigned faculty person.

It is a department requirement (intended to assist in the fulfilling of the above requirements) that the student declare himself as a minor in the department two semesters prior to graduation.

Only letter grades will be counted toward the 18 credit hours necessary for the minor.

Ancient Studies Sequence
Within the Department of Religious Studies there is also a sequence of courses in Ancient Studies. This sequence provides a program for students interested in the civilizations of the Ancient Mediterranean and Middle East.

The sequence in Ancient Studies requires 38 credits (of which 24 credits must be in Religious Studies courses). The prerequisite is normally two years of high school Latin or one year of college Latin. (The latter can be taken concurrently with other required courses but without credit toward it. It can be waived in special cases with the consent of the coordinator.)
The sequence of Ancient Studies courses is to be arranged in consultation with the coordinator of the sequence and approved by the department chairperson. For related interdisciplinary electives, see Classics.

Judaeic Studies Sequence
The department has a sequence of courses in Judaeic Studies. A student may fulfill the requirements of the department for the B.A. degree (36 hrs.) by taking the core courses in the Judaeic Studies sequence and the remainder of his/her courses from the listed electives.

CORE:
- REL 3003 Introduction to Religion (3)
- REL 3611 History of Judaism I (3)
- REL 3612 History of Judaism II (3)
- REL 3613 Modern Judaism (2)
- REL 4221 Hebrew Bible I/Old Testament Law and History (4)
- REL 4224 Hebrew Bible II/Prophecies and Writings (4)

TOTAL (19)

ELECTIVES (select 16 hrs.):
- ANT 4367 The Middle East (3)
- HEB 1120 Basic Hebrew I (4)
- HEB 1121 Basic Hebrew II (4)
- LIT 3374 The Bible as Literature (3)
- LIT 3555 Selected Topics in English Studies (4)
- REL 3280 Biblical Archaeology (3)
- REL 3600 Introduction to Judaism (3)
- REL 3900 Directed Readings (1-4)
- REL 4910 Undergraduate Research (1-4)
- REL 4931 Seminar in Religion (3)

With the approval of the Department Chairperson, substitutions may be made in both the core and elective courses where the changes are considered to be in the student's best interest.

South Asian Studies Sequence
Within the Department of Religious Studies, there is a sequence of courses in South Asian Studies, designed for the student who wishes to pursue interdisciplinary studies in the civilizations of South Asia while rooted in the methodologies of Religious Studies. Therefore, a core course in South Asian Religions, as well as interdisciplinary courses in South Asian Studies are required. Of the required 36 credits required for the B.A. degree, 8 form the religious studies core, and 3 form the South Asian Religions core. Twenty-five additional credits are to be elected, all subject to the approval of the Director of South Asian Studies, with at least two courses taken in the Social Sciences and one from the Humanities (other than Religious Studies) or Fine Arts.

The student must submit a senior thesis which demonstrates a level of scholarship appropriate for an undergraduate degree in South Asian Studies. This requirement may be met by submitting an exemplary paper already written for a course in the South Asian Studies sequence, or the student may write a new thesis through REL 4910, Undergraduate Research. Sequence requirements are approved by the Director of South Asian Studies and the Chairman of the Department.

RELIGIOUS STUDIES CORE (8 hrs):
- REL 3921 Colloquium (2)
- REL 4931 Seminar in Religion (3)
- or REL 4939 The Development of Religious Studies (3)
- one course in western religion

SOUTH ASIAN RELIGIONS CORE (3 hrs):
- REL 3330 Religions of India (3)

ELECTIVES (Minimum of 16 hrs.):
- REL 4333 Hinduism (4)
- REL 4343 Buddhism in India, Sri Lanka, and Southeast Asia (4)
- REL 4344 Buddhism in China, Japan, and Tibet (4)
- REL 3900 Directed Readings (1-4)
- REL 4910 Undergraduate Research (1-4)

and other courses or study abroad programs as approved by the Director of South Asian Studies.

HUMANITIES/ARTS REQUIREMENT (Minimum of 3 hrs.):
- HUM 4402 Humanities in the Orient: India (4)
- HUM 3271 Culture East & West - I (4)
- HUM 3273 Culture East & West - II (4)
- ARH 4530 Oriental Art (4)

and other courses or study abroad programs as approved by the Director of South Asian Studies.

SOCIAL SCIENCE REQUIREMENT (Minimum of 6 hrs.):
- GEA 3703 Geography of Asia (4)
- ASH 3501 History of India (4)
- CPO 4950 Comparative Government and Politics of Selected Countries or Areas (3)

and other courses or study abroad programs as approved by the Director of South Asian Studies.

SPECIAL CONCENTRATION: ARABIC STUDIES
ARH 4530 Oriental Art (4)

and other courses or study abroad programs as approved by the Director of South Asian Studies.

■ SOCIAL WORK (SOK)

The University of South Florida offers a program leading to a Bachelor of Social Work (B.S.W.) degree in the School of Social Work, College of Arts and 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.

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 interventional methods, and skill in their application to a variety of client systems. For example, interventional 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 influences of the sociocultural base of the client. 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, the profession itself, the organization in which one works, and to the general public which ultimately provides any professional with legitimacy.

Enrollment in the B.S.W. program is limited. Unlike many academic programs where the student may declare a major, the B.S.W. program is a limited access program. Students may apply for admission to the School for the B.S.W. 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 filing 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 filing a declaration of major form with the College of Arts and Sciences, Records and Advising Office and a similar form with the School of Social Work. All pre-majors will be assigned to an advisor within the School who will assist the student in selecting pre-core courses (see listing). 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 School of Social Work before the beginning of the semester in which admission is sought;
4. A student must be asked to complete an admission interview with a favorable action from the Admissions Committee;
5. A student must achieve a grade of 'B' or better in SOW 3302, Introduction to Social Work, and SOW 3203, The American Social Welfare System, to be considered for admission;
6. A student must have successfully completed CLAST. CLAST may be repeated and the applicant may reapply to the program after successful completion of CLAST.
A student must achieve a GPA of 2.75 in all Social Work courses to enroll in field placement and subsequently graduate with the B.S.W. degree.

Pre-Core Course

A student must successfully complete:

1. One course in each of the following cognate areas or equivalency:
   - Human Biology: Food and Drugs
   - Sex, Reproduction and Population
   - Principles of Biology for Non-majors
   - 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. One of the following cross-cultural courses -
   - African and Afro-American Studies: Introduction to Afro-American Studies
   - Social Institutions and the Ghetto
   - Blacks 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. One of the following Life Span Development courses -
   - The Life Cycle
   - Developmental Psychology

4. Both of the following Social Work courses -
   - American Social Welfare System
   - Introduction to Social Work

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 3401 (4)
4. Social Work Practice Courses
   - SOW 4341 (5)
   - SOW 4343 (5)
5. Directed Field Experience
   - SOW 4510 (10)
6. Additional Requirements
   - SOW 4522 (2)

Summary:

- Core Courses: 26 hours
- Field Experience: 10 hours
- TOTAL: 36 hours

SOCIology (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 Baccalaureate 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. A minimum grade of 'C' or better must be attained in each course in the major. Grades of 'D' or 'F' attained in sociology coursework (other than SYG 3010, SYG 2412 and SYA 3504) will, however, be used in calculating the major GPA unless the course is retaken under the grade forgiveness policy. 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 on campus courses. In Sociology, we require that 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 ensure 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:

- SYA 3010 (3)
- SYG 2000 (3)
- SYG 3010 (3)
- SYG 3000 (3)
- SYA 3300 (3)
- SYO 3530 (3) or SYO 3500 (3)
For students electing a major after having successfully taken 12 upper level credits without having had a formal introductory course, SYO 3500 (Social Organization) may be substituted for SYG 2000 as a requirement. Students making this choice must take SYO 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 the Minor in Sociology

A minor consists of a total of 15 credits; SYG 2000, Introduction to Sociology (or equivalent) plus 12 semester hours at the 3000 level or higher. A grade of "C" or better must be attained in each course used to satisfy the minor requirement. Courses that do not count toward the major may not be used toward the minor. Though we do not require an advisor, feeling students to be capable of making reasonable choices, we recommend the use of an advisor to find the best set of courses fitting one's personal interests.

WOMEN'S STUDIES (WST/ISS)

The Department of Women's Studies offers two majors: Women's Studies and Interdisciplinary Social Sciences. A minor in Women's Studies is also available. Requirements for the majors in Women's Studies and Interdisciplinary Social Sciences are described below.

Women's Studies offers 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, Counselor 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 36 hours distributed as follows:

Required Core Courses (6 hours)

<table>
<thead>
<tr>
<th>WST 3011</th>
<th>WST 4935</th>
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<td>and at least 1 course from each of the following 6 areas of concentration (18 hours) and 12 hours of electives</td>
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</tbody>
</table>

1. MULTICULTURAL ISSUES

| WST 3275 | AMH 3561 |
| AFA 4335 | AMH 3562 |
| ANT 4302 | WST 3210 |
| WST 4260 | WST 3220 |
| WST 5266 | WST 4309 |
| WST 4310 |

2. HISTORY

| WST 3275 | AMH 3561 |
| AFA 4335 | AMH 3562 |
| ANT 4302 | WST 3210 |
| WST 4260 | WST 3220 |
| WST 5266 | WST 4309 |
| WST 4310 |

3. HUMANITIES

| REL 3145 | SOP 3742 |
| WST 4395 | SYO 4800 |
| AMS 3370 | WST 2380 |
| WST 4262 | WST 4320 |
| WST 4263 |

4. SOCIAL SCIENCES

| WST 3275 | WST 4930 |
| AFA 4335 | WST 4260 |
| ANT 4302 | WST 4262 |
| WST 3275 | WST 4263 |

5. THEORY/PHILOSOPHY

| WST 4342 | POS 4693 |
| PHI 4632 | POS 4694 |
| PHM 5125 | PUP 4323 |
| WST 5001 | |
| WST 5318 |

The following courses, not included within the six areas of concentration, may be used to complete elective hours:

| WST 3010 | WST 4930 |
| WST 3360 | WST 5934 |
| WST 4900 | STA 3122 |
| WST 4910 |

Students electing to major in Women's Studies should consult the undergraduate advisor for timely scheduling of classes.

Requirements for the Minor in Women's Studies:

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

| WST 3010 | WST 4930 |
| WST 3360 | WST 5934 |
| WST 4900 | STA 3122 |
| WST 4910 |

Plus 5 electives chosen from the 6 areas of concentration with no more than 2 courses from any one area and with at least 2 courses at the 4000 level and above.

Students who minor in Women's Studies must be certified by the Undergraduate Advisor.

Minor in "Women of Color"

Women's Studies offers a specific concentration in the area of Women of Color whose focus will be to examine the relationship between women of color and institutions of power. For those interested in the difficult task of creating a harmonious multifaceted world, this course of study should be personally and socially rewarding as well as academically challenging.

The concentration prepares students for graduate work and/or professional careers in traditional and non-traditional areas such as health and education, international relations, the creative arts, law, medicine, social work, government and public policy, the social sciences, and community organization.

The requirements for the minor are 15 hours which are to be selected from the following upper-level courses:

| AFA 4335 | WST 4260 |
| WST 4262 | WST 4930 |

INTERDISCIPLINARY SOCIAL SCIENCES (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 and is housed in Women's Studies. This major offers a wide choice of courses, and an opportunity to design a program of study geared toward the student's individual needs and interests. Each program of study is designed in such a way that quality and coherence are assured. The program of study is to be planned by the student in consultation with the advisor who approves each individual curriculum contract.

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 Arts and Sciences (CAS), with a minimum of 30 hours at the 3000 or above level.

2. the ISS student chooses between two cognate areas (provided below) and completes twelve hours in each. Three special electives are added.

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

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

5. students in Communications Sciences and Disorders major in ISS with an emphasis in (a) Speech and Hearing Science, (b) Interpreter Training for the Deaf, or (c) American Sign Language.
6. Other personal curricula may be tailored for those highly motivated students, with a minimum grade point average of 3.2, developed with the approval of the advisor. 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.

No transfer courses with grades of "D" are acceptable for credit in the ISS major.

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, GIA, GPY, HTY, HUS, INT, LAS, PAD, PSY, SOC, SOW, SPA, 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 humans in social groups, the various concepts, theories and methods studied in the social sciences, and apply them to the issues of the day. Social Science Statistics is also required for majors in Interdisciplinary Social Sciences.
The College of Business Administration offers courses of study leading to both undergraduate and graduate degrees. These programs are designed to prepare men and women for careers in business and public service.

The undergraduate curriculum which leads to a Bachelor of Arts or Bachelor of Science degree is composed of several segments: (1) broad general education in the arts, humanities and sciences; (2) the common body of knowledge for management responsibilities; (3) specialized areas of concentration in Accounting, Economics, Finance, Management, Marketing, General Business, Management Information Systems; and (4) opportunities for breadth in both business and nonbusiness subjects. Through flexibility in its requirements, the College is able to satisfy the different interests and career objectives of students with diverse backgrounds. Graduate programs in the College are described in the USF Graduate Catalog.

BACCALAUREATE LEVEL DEGREE PROGRAMS

Admission to the College Undergraduate Programs

1. Admission to the College of Business Administration is based upon availability of faculty and space by discipline.

2. The College of Business Administration is an upper level limited access college, which means that it has admission requirements in addition to those of the University in general.

The criteria to be admitted to the College of Business Administration are as follows:

   a. Minimum of 60 semester hours of college credit earned.
   b. Minimum of 2.5 cumulative grade point average on all college-level work and minimum 2.0 on all credit attempted at USF including any prior to salvage.
   c. Completion of these prerequisite college courses (or equivalents):
      - Financial & Managerial Accounting I & II
      - Microeconomics and Macroeconomics
      - Statistics I
      - Computers in Business
      - Elementary Calculus I
   d. All courses (or their equivalents) listed in c., above, must be completed: (1) with at least a C- grade, and (2) with a combined minimum grade point average of 2.25.
   e. In computing entry grade point average all business and economics courses taken for S or U grades will be converted to C or F, respectively.
   f. Students meeting the limited access criteria will be permitted to enroll in all foundation courses in Business (listed below) except GEB 4890, provided they have completed 60 semester hours and have met course prerequisites.
   g. Minimum of 550 on TOEFL when applicable.
   h. Students must be admitted to the College of Business Administration at least one term before their anticipated graduation date.

Academic Dismissal

Students who have been dismissed twice from the University for academic reasons will not be readmitted to the College of Business Administration.

Transfers from Junior/Community Colleges

Junior/community college students should complete the program of general education at the junior/community college.

Students pursuing the associate degree in university transfer/parallel curricula at the junior/community college should take two semesters of mathematics to include a course in elementary calculus, two semesters of accounting principles, two semesters of economic principles, one semester of statistics, and one semester of data processing, including computer utilization. (See paragraph 2c above.) Students pursuing associate degrees in terminal/career programs must be aware that some courses taken at the junior/community college may not be acceptable for credit in the baccalaureate programs at USF.

Students should avoid taking any Business courses at the junior/community college which are listed as 3000 and 4000 level courses at USF. Normally, courses in finance, marketing, management, and accounting as well as other business administration and economic courses taken at the lower division level which are offered as upper division courses at USF will not be accepted for upper division credit in business administration or economics. Exceptions to this policy will be made only upon proper validation of such courses. Validation consists of CLEP or other written examinations prepared and administered by the College of Business Administration, USF.

Transfer Students from Other Colleges and Universities

Transfer credits ordinarily will be accepted from accredited institutions in the amount earned; however, all hours earned may not always be applied toward graduation. Individual courses will be evaluated and appropriately credited toward requirements in the student's program at the University of South Florida. Transfer students are required to complete satisfactorily, at USF a minimum of 21 semester hours of Business Administration courses, of which a least 12 semester hours must be in the major field. Independent study and independent research courses do not fulfill this requirement. The university requires that at least 30 of a student's last 60 hours be taken in on-campus courses at USF.

General Requirements for B.A./B.S. Degree

Students must satisfactorily complete a minimum of 120 semester hours, of which 60 or more must be earned at baccalaureate degree-granting institutions. Of the 120 hours, at least 60 hours must be business courses, and a minimum of 54 hours must be non-business courses (i.e., all courses not normally offered in the College of Business Administration). Additional electives may be required to reach 120 hours. These electives may be either business or non-business. More specifically the requirements for graduation are:

1. Non-Business

   a. General Distribution
      
   b. Fine Arts & Humanities
      
   c. Mathematics & Quantitative Methods
      
   d. Natural Sciences
      
   e. Social and Behavioral Sciences
      
   f. Additional general distribution courses to reach at least 40 hours (see General Distribution Requirements for more detail)

   g. Additional non-business courses to reach at least 54 hours.

2. Business

   a. Foundation Courses in Business
      
   b. Core Courses in Business
      
   c. Elective Courses in Business

   d. Additional Business Courses

   e. Total Business

   f. Total Non-Business

   g. Total Hours

   h. Total Hours (cumulative)

   i. Total Hours (last 60 hours)

   j. Total Hours (last 30 hours)

   k. Total Hours (last 12 hours)

   l. Total Hours (last 6 hours)

   m. Total Hours (last 2 hours)

   n. Total Hours (last 1 hour)

   o. Total Hours (last 0 hours)

   p. Total Hours (last 1/2 hour)

   q. Total Hours (last 1/4 hour)

   r. Total Hours (last 1/8 hour)

   s. Total Hours (last 1/16 hour)

   t. Total Hours (last 1/32 hour)

   u. Total Hours (last 1/64 hour)

   v. Total Hours (last 1/128 hour)

   w. Total Hours (last 1/256 hour)

   x. Total Hours (last 1/512 hour)

   y. Total Hours (last 1/1024 hour)

   z. Total Hours (last 1/2048 hour)

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<td>3</td>
</tr>
<tr>
<td>ACG</td>
<td>Financial &amp; Managerial Accounting II</td>
<td>3</td>
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<tr>
<td>BUL</td>
<td>Law and Business</td>
<td>3</td>
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<td>CGS</td>
<td>Computers in Business</td>
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<tr>
<td>ECO</td>
<td>Economic Principles: Macroeconomics</td>
<td>3</td>
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<tr>
<td>ECO</td>
<td>Economic Principles: Microeconomics</td>
<td>3</td>
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<td>Intermediate Price Theory</td>
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<td>FIN</td>
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<td>Management Science</td>
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   i. Total Hours (last 1/8 hour)
Management:

Accounting:

student is required to take one upper-level Economics course. Consult with a business advisor for suggestions on acceptable courses.

5. A grade-point average of 2.0 must be achieved in the major field, as well as in all USF work, for students to be certified for graduation. Students must have satisfactorily completed CLAST and the writing and computation course requirements of 6A.10.30 ("Gordon Rules"). For a Bachelor of Arts degree, students must pass the foreign language competency exam.

6. All courses in the major or minor field and all foundation courses in business must be taken on a graded basis; the S/U option is not available.

While the College provides advising services to assist students with academic planning, the responsibility for seeing that all graduation requirements are met ultimately rests solely with the student.

Student Advising and Records

The Office of Undergraduate Programs provides the following services for College of Business Administration students:

1. Academic advising and program information.
2. Orientation for undergraduate students applying for admission to the College of Business Administration. Orientation is mandatory prior to being accepted.
3. Registration and drop/add for business courses.
4. Evaluation of undergraduate transcripts of transfer students.
5. Maintenance of academic advising records for all admitted students.

PROGRAMS AND CURRICULA

GENERAL BUSINESS (GBA)

The General Business Major is a program of study that will allow the student to take additional upper-level course work in several business and, in some instances, other disciplines related to the student's plan of study. Currently two tracks are available.

Requirements for the B.A./B.S. Degree

Within the 120 semester hour program as listed in the General Requirements section, students must complete a minimum of 20 hours of upper-level accounting courses.

Required Accounting Courses:

- ACG 3102 Intermediate Accounting I (4)
- ACG 3112 Intermediate Accounting II (4)
- ACG 3341 Cost Accounting and Control I (3)
- ACG 3401 Accounting Information Systems (3)
- TAX 4001 Federal Taxes I (3)
- ACG 4632 Auditing I (3)
- Total (20)

Required non-business Courses:

- One of the following:
  - ENC 3213 Professional Writing
  - ENC 3310 Expository Writing
  - (or other equivalent course)

- One of the following:
  - COM 3110 Communications for Business and the Professions
  - SPC 2023 Fundamentals of Speech Communications
  - (or other equivalent course)

The student's program must also include coursework taken in behavioral sciences and humanities, such as psychology, anthropology, and sociology, and the political environment of business and society, such as political science, public administration, and ethics. College of Business Administration advisors will recommend courses that will satisfy the program requirements.

Students planning to enroll in the M.Acc. Program should take TAX 4015, Federal Taxes II, as part of their required accounting courses resulting in a 23 hour major.

Accounting majors can use the forgiveness policy only once in upper level accounting courses. Accounting courses taken by accounting majors on an S/U basis will not be counted toward the 120 hour graduation requirement. Independent Research, ACG 4911, will not be accepted as credit toward the minimum degree requirements in the accounting concentration.

Accounting majors must earn a "C" grade in each of the sequential upper-level accounting courses before being allowed to go on to the next course: i.e., ACG 3102, ACG 3341, ACG 4632, TAX 4001.

Students desiring to take the Uniform CPA Examination to practice as certified public accountants are required to have completed a five-year (150 semester hour) program of study.

Marketing:

- MAR 3823 Marketing Management (3)
- MAR 3613 Marketing Research (3)
- Other upper level business electives (2-9)
- TOTAL (18-24)

Independent study and independent research courses are not appropriate electives.

Track 2 is a Real Estate oriented track which requires 24 credit hours of multidisciplinary course work in business and economics as well as in urban planning, architecture, public administration and other related fields. Students interested in the Real Estate track should see a business advisor to obtain the detailed choices necessary to develop their plan of study.

ACCOUNTING (ACC)

The objectives of the baccalaureate degree program in accounting are to provide students with accounting and business knowledge that will serve as a basis for careers in industry, government, non-profit organizations and public accountability.

The baccalaureate program also prepares students for entry into the Master of Accountancy (M.Acc.) professional degree program. See CPA requirements in the state of Florida below.

Requirements for the B.A./B.S. Degree

Within the 120 semester hour program as listed in the General Requirements section, students must complete a minimum of 20 hours of upper level accounting courses.

Required Accounting Courses:

- ACG 3102 Intermediate Accounting I (4)
- ACG 3112 Intermediate Accounting II (4)
- ACG 3341 Cost Accounting and Control I (3)
- ACG 3401 Accounting Information Systems (3)
- TAX 4001 Federal Taxes I (3)
- ACG 4632 Auditing I (3)
- Total (20)

Required non-business Courses:

- One of the following:
  - ENC 3213 Professional Writing
  - ENC 3310 Expository Writing
  - (or other equivalent course)

- One of the following:
  - COM 3110 Communications for Business and the Professions
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  - (or other equivalent course)

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The baccalaureate program also prepares students for entry into the Master of Accountancy (M.Acc.) professional degree program. See CPA requirements in the state of Florida below.

Requirements for the B.A./B.S. Degree

Within the 120 semester hour program as listed in the General Requirements section, students must complete a minimum of 20 hours of upper level accounting courses.

Required Accounting Courses:

- ACG 3102 Intermediate Accounting I (4)
- ACG 3112 Intermediate Accounting II (4)
- ACG 3341 Cost Accounting and Control I (3)
- ACG 3401 Accounting Information Systems (3)
- TAX 4001 Federal Taxes I (3)
- ACG 4632 Auditing I (3)
- Total (20)

Required non-business Courses:

- One of the following:
  - ENC 3213 Professional Writing
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  - (or other equivalent course)

- One of the following:
  - COM 3110 Communications for Business and the Professions
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  - (or other equivalent course)

The student's program must also include coursework taken in behavioral sciences and humanities, such as psychology, anthropology, and sociology, and the political environment of business and society, such as political science, public administration, and ethics. College of Business Administration advisors will recommend courses that will satisfy the program requirements.

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Track 2 is a Real Estate oriented track which requires 24 credit hours of multidisciplinary course work in business and economics as well as in urban planning, architecture, public administration and other related fields. Students interested in the Real Estate track should see a business advisor to obtain the detailed choices necessary to develop their plan of study.
Any further questions concerning the CPA examination should be directed to the faculty of the School of Accountancy.

**ECONOMICS (ECN)**

Economics offers a clear, logical way of thinking about complicated business problems and contemporary social issues such as unemployment, inflation, pollution, and crime. The department offers two major programs. Option I, by offering broad choices, allows students to tailor their programs to provide training for careers in business, teaching, or government service. It is also excellent preparation for graduate education in business, law and other professional areas. Option II, by offering the student continuing concentration in price theory, aggregate economics, mathematical economics, and econometrics prepares students for graduate education in economics. The department offers a minor program open to students throughout the University.

Students interested in majoring or minoring in economics should contact the undergraduate academic advisor in the Department of Economics for more information about the program.

**Requirements for the B.A./B.S. Degree:**

Within the 120-semester hour program as listed in the General Requirements section, students must complete a minimum of 18 hours of upper-level economics beyond the business core requirements. Students must obtain a grade of "C" or higher in ECO 3101, Intermediate Price Theory, in order to enroll in any course for which ECO 3101 or ECO 3203 is a prerequisite. No more than 3 hours credit can be applied toward a major from ECO 4905 and/or ECO 4914.

**Option I**

**Required Economics Courses:**

a) ECO 3203

b) 15 hours of upper-level economics courses (to ensure broad coverage students must include at least one course from each of groups A, B, and C in their programs). At least 9 of the 15 hours of additional upper-level economics courses must be courses for which either ECO 3101 or ECO 3203 is a prerequisite. These courses are marked with an asterisk.

- **Group A** (at least 3 hours) selected from: ECO 3622, ECP 3413, ECP 3613, ECP 4232, ECS 3013

- **Group B** (at least 3 hours) selected from: *ECO 4303, ECO 4323, *ECO 4451, ECS 4003

- **Group C** (at least 3 hours) selected from: *ECO 3703, *ECO 4504, *ECO 4213, *ECO 3203, ECO 4935 (Selected Topics - *Industrial Organization

**Option II**

**Required Economics courses (15 hours):**

- ECO 3203 Intermediate Income and Monetary Analysis
- ECO 4935 Selected Topics-Advanced Price Theory
- ECO 4935 Selected Topics-Advanced Aggregate Economics
- ECO 4401 Mathematical Economics
- ECO 4935 Selected Topics-Introduction to Econometrics

Additional upper-level economics course (3 hours)

**Requirements for a Minor in Economics**

Students majoring in Business Administration, as well as students from other colleges may minor in Economics. The requirements are:

1. ECO 2023 Economic Principles (Microeconomics) (3)
2. ECO 3013 Economic Principles (Macroeconomics) (3)
3. ECO 3101 Intermediate Price Theory (3)
4. ECO 3203 Intermediate Income and Monetary Analysis (3)
5. Upper level economics electives (6)
6. Total Economics Hours (18)

(excluding the variable credit courses ECO 4905 and 4914)

QMB 3200 Business and Economic Statistics II, or its equivalent, is acceptable for credit in the minor.

2. Before being recognized as a minor in economics, students must obtain approval of the courses involved in their minor program from the advisor in the Economics department.

3. 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.

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

**FINANCE (FIN)**

The Finance program provides a broad-gauged analytical program for students anticipating a career in management of both large and small organizations. Students seeking a financial career in business, in financial institutions or careers in the fields of insurance, real estate, or financial planning should find the Finance major particularly valuable. In addition, the program in finance is designed to provide the flexibility needed by students who seek professional degrees in areas such as law and public administration.

The Finance program offers applied and theoretical courses directed to the identification and solution of problems in the acquisition and allocation of funds by organizations in both the private and public sectors in both domestic and multinational settings. Finance relies on an interdisciplinary approach which draws on economic theory, accounting, information systems, and the quantitative decision framework of statistics and mathematics. The required courses for finance majors focus on understanding the institutional environment and the analytical tools used by decision makers. Also included are concepts of capital budgeting, risk analysis, asset and liability management, and an examination of the economic, social, and regulatory forces affecting the decision-making process.

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

Within the 120 semester hour program as listed in the General Requirements section, students must complete a minimum of 18 hours of upper-level finance courses beyond FIN 3403.

**Required Finance Courses:**

- FIN 3233 Money and Banking (3)
- FIN 4414 Advanced Corporation Finance (3)
- FIN 4504 Principles of Investments and either (3)
- FIN 4443 Financial Policies and Strategies (3)
- FIN 4514 Advanced Investment Analysis and Management (3)
- AND a minimum of 2 additional Finance electives...from the following Approved list.

**Total** (18-24)

**Approved List:**

- FIN 3604 International Finance (3)
- FIN 4303 Financial Institutions (3)
- FIN 4324 Bank Management (3)
- FIN 4412 Working Capital Management (3)
- FIN 4443 Financial Policies and Strategies (3)
- FIN 4514 Investment Analysis and Management (3)

And other courses approved by the Finance Department Chair.

**INFORMATION SYSTEMS AND DECISION SCIENCES (ISM)**

The Management Information Systems (ISM) major provides the skills, knowledge and abilities necessary for information systems development and information systems management positions both in business and non-business organizations.

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

Students will typically enter the program at the beginning of their junior year. Within the 120 semester hour program listed in the General Requirements section, students must complete a set of three MIS courses which are required of all majors, nine hours of approved MIS electives and three hours of non-business courses as indicated below. No more than six credit hours can be applied toward the major for ISM 4905 and/or ISM 4950.
Required MIS Courses:
ISM 3113 Systems Analysis and Design (3)
ISM 4212 Database Administration (3)
ISM 4300 Managing Information Services (3)
Approved MIS Electives (9)
Total (18-24)

Required Non-business Courses:
one of the following:
COM 3110 Communication for Business and the Professions
SPC 2023 Fundamentals of Speech Communication
ENC 3213 Professional Writing
ENC 3310 Expository Writing
(or other equivalent course)
plus the following:
COP 3120 COBOL Programming I
(COBOL I is a prerequisite for most of the
required MIS courses and should be completed
by the end of the first semester in the junior
year.)
COP 3121 COBOL Programming II
(or other high-level language)

Requirements for a Minor in MIS
(for Business Majors only)
Students majoring in Business Administration may minor in MIS.
The requirements are:
1. ISM 3113 Systems Analysis and Design (PR: cobol) (3)
ISM 4212 Database Administration (3)
MIS electives approved by department chair (6)
Total MIS hours (12)
2. A grade-average of 2.0 or better must be achieved in the minor
coursework.
3. At least 9 hours of the required 12 credit hours must be taken
in residence at USF.

MANAGEMENT (MAN)
The undergraduate degree in the Department of Management
prepares students for entry level positions in Human Resource Man-
agement, Industrial Relations, and Small Business Management. It
also prepares students for entry into graduate programs, such as
the Master of Science in Management and the Master of Business
Administration.

Requirements for the B.A./B.S. Degree:
Within the 120-semester-hour program as listed in the General
Requirements section, students must complete 18 hours of man-
age-ment beyond MAN 3025.
Required Management Courses:
MAN 3240 Organizational Behavior Analysis (3)
Additional upper-level management courses (15-21)
Total (18-24)
MAN 4504 and MAN 4507 do not count towards the management
major.
Non-Business Requirements
one of the following:
ENC 3213 Professional Writing
ENC 3310 Expository Writing
(or other equivalent course)
Students are encouraged to seek additional curriculum advice
from the Management Department.

Requirements for a Minor in Management
(for Business Majors Only)
Students majoring in Business Administration may minor in Man-
age-ment.
The requirements are:
1. MAN 3240 Organizational Behavior Analysis (3)
Management electives approved by department chair (9)
Total Management hours (12)
2. A grade-average of 2.0 or better must be achieved in the minor
coursework.
3. At least 9 hours of the required 12 credit hours must be taken
in residence at USF.

MARKETING (MKT)
Marketing is a dynamic field with many dimensions, including
product selection and planning, product distribution, pricing and
promotion. Marketing poses many challenges and yields generous
rewards for those meeting these challenges. Marketing operations
are carried out domestically and internationally in virtually all
business organizations offering a product or service. Many market-
ing concepts are applicable to the operations of non-profit organi-
sations such as governmental, educational, and health care insti-
tutions as well as charitable and political campaigns.
Marketing operations provide the most visible links between the
firm or institution and its many publics. Marketing in the end deals
with people, people who are constantly changing in their needs,
wants and desires; and coupled with these changing tastes is a
fiercely competitive environment sustained by all the resources of a
rapidly evolving technology. These forces lead to much of the
challenge -- to much of the dynamic nature of marketing.
The marketing program at USF prepares students for initial entry
and management positions in many areas of marketing with a cur-
riculum that is concerned with:
1. Understanding consumer behavior and the broader environ-
ment within which the firm or institution operates;
2. Collecting, analyzing, and using information about customers,
competitors, and the environment for managerial decisions;
3. Distributing products effectively and efficiently from producer to
user;
4. Advertising and promoting the offerings of the firm or institution
effectively;
5. Creatively and effectively managing a sales force selling indus-
trial or consumer goods and services; and
6. Managing retail and wholesale operations including the concep-
tualization, implementation and evaluation of the buying, mer-
chandising, and control functions.
Each student is strongly encouraged to set up his own plan of
study with the assistance of a Marketing department faculty
adviser. Such counseling can lead to a better definition of career
objectives and will result in a plan of study that is consistent with
each student's career objectives.
Undergraduate students in the College of Business not majoring
in Marketing are encouraged to take selected offerings from the
Marketing curriculum to broaden their backgrounds and to prepare
for marketing-related positions in business or non-profit organiza-
tions.

Requirements for the B.A./B.S. Degree:
Within the 120-semester-hour program as listed in the General
Requirements section, students must complete a minimum of 18
hours in marketing beyond MAR 3023.
Required Marketing Courses:
MAR 3823 Marketing Management (3)
MAR 3613 Marketing Research (3)
MAR 4824 Marketing Management Problems (3)
Additional upper-level marketing courses (9-18)
Total (18-24)
It is strongly recommended that marketing majors include
courses in speech, computer science, finite mathematics, social psy-
chology, and mass communications as part of their general elec-
tives.
The following Marketing elective tracks are recommended for
students with specific interests:
Industrial Marketing/Sales Management
MAR 4403 Sales Management (3)
MAR 4453 Industrial Marketing (3)
MAR 4503 Consumer Behavior (3)
MAR 3400 Professional Selling (3)
Promotion (Industrial and/or Consumer)
MAR 4333 Promotion Management (3)
MAR 4503 Buyer Behavior (3)
MAR 4933 Promotion Campaigns (3)
MAR 3400 Professional Selling
Logistics and Physical Distribution (Industrial and/or Consumer and/or International) MAR 4203 Channels Management MAR 4213 Logistics and Physical Distribution Management MAR 4453 Industrial Marketing MAR 4231 Retailing Management and/or MAR 4156 International Marketing

Retailing
MAR 4231 Retailing Management MAR 4503 Buyer Behavior MAR 4333 Promotion Management and/or MAR 3400 Professional Selling MAR 4213 Logistics and Physical Distribution Management

Other Campuses
Due to limited enrollment and faculty, only the following majors are regularly offered at the Regional Campuses:

St. Petersburg
Accounting, Management, and General Business Administration (Track 1).

Sarasota
Accounting and General Business Administration (Track 1).

Fort Myers
Accounting and General Business Administration (Track 1).

Lakeland
Only limited courses available
Students may declare other business majors while attending these locations, but it may be necessary to finish their major study requirements at another campus within the University.

Student Organizations within the College of Business Administration
All students are encouraged to participate in extracurricular activities. The following organizations provide a means for students to develop both professionally and socially while attending the College of Business Administration.

American Society of Personnel Management - Student chapter of the American Society for Personnel Administration designed for students interested in careers in human resource management.

American Student Production and Inventory Control Society - An organization which practices the art and science of production and inventory management. ASPCS's primary objective is to develop professional efficiency through study, research, and application of scientific methods. Professional meetings and publications promote the dissemination of knowledge and information.

Association of Marketing Students - A collegiate chapter of the American Marketing Association, will help to further the growth of business oriented individuals within the field of Marketing.

Beta Alpha Psi - The national professional accounting fraternity devoted to the promotion of the profession, inspiring professional ideals, and recognizing academic achievement.

Beta Gamma Sigma - Honorary society which encourages and rewards outstanding scholarship among business students.

Business College Council - An organization whose representatives from each of the major fields advises the Dean of the College and the faculty on student attitudes and goals. Also, it acts as a liaison between the Student Government Association and the College of Business Administration.

Delta Sigma Pi - Fosters the study of business and a close association between students and the business world.

Economics Club - Provides a forum for discussion of economic issues and actively encourages communication between students and Economics faculty.

Iota Phi Lambda - A business and professional sorority designed to encourage the development of personalities for all areas of leadership.

Management Information Systems Society - Student chapter of the Data Processing Management Association, career oriented and interested in all areas of business data management.

Minority Students Organization - Encourages and supports students in their efforts to achieve success in a demanding academic setting.

Phi Chi Theta - A career oriented professional organization that encourages the study of business.

Pi Sigma Epsilon - A professional society interested in marketing, sales management, and selling.

Sigma Iota Epsilon - An honorary and professional management society affiliated with the Academy of Management.

Student Accounting Organization - Promotes accounting both as an academic discipline and as a profession.

Student Finance Association - An organization for finance majors and other business oriented students which provides exposure to the many facets and opportunities in the field of finance.
The College of Education places an emphasis on students learning what is relevant for the world of the 21st century and on their getting deeply involved in thinking about themselves and their universe.

The College of Education is committed to a continuous and systematic examination of the professional program of teacher education. Professional practice is examined experimentally under controlled conditions, which make possible an objective appraisal of effects in terms of learning outcomes.

The University of South Florida follows a University-wide approach to teacher education. Its programs for the preparation of teachers represent cooperative effort in planning and practice by faculties of all academic areas. Courses needed by teacher candidates but designed also for other students are offered outside the College of Education. Courses in the University which are primarily designed for teacher candidates are taught by the College of Education faculty.

In the total teacher education program there is a special concern for developing in the student a deep interest in intellectual inquiry and the ability to inspire this interest in others.

**Baccalaureate-Level Degree Programs**

**Admission to the College**

All students who plan to teach must apply for admission to a teacher education program through the Student Personnel Office of the College of Education. Prospective secondary and K-12 teachers are enrolled in teacher education programs involving both the College of Education and various other colleges of the liberal arts areas.

Admission to an upper level teacher education program is contingent upon meeting the following minimum college requirements:

1. Completion of a College of Education application form.
2. Completion of the General Distribution requirements for Education majors. Provisional admission may be granted if no more than three individual General Distribution courses remain to be taken, provided Freshman English has been completed.
3. Completion of a minimum of 50 semester hours.
4. An overall minimum GPA of 2.5 on all attempted hours plus a minimum ACT score of 19 (enhanced ACT score of 20 or SAT score of 835) will be required for full admission to the College. An overall minimum GPA of 2.25 on all attempted work will be accepted for students with a 21 or higher ACT score (enhanced ACT score of 22 or SAT score of 940). Students must submit a score from the American College Test (ACT) or Scholastic Aptitude Test (SAT).

Admission to programs will be based upon the applicants' performance on either test. If the number of applicants exceed the capacity of a program, admission will be given to students with higher scores. Students who meet all other requirements but have not achieved minimum test scores or minimum GPA may be considered under Affirmative Action. The absolute minimum test scores for this process are prescribed by the College of Education.

5. Additional criteria are established by each program. (See Admission to Programs below.)

**Admission to Programs**

Admission to some programs is based on additional selection criteria beyond the College requirements stated above. Some programs accept a limited number of students. Additionally, certain programs admit students only in a specified semester. Students should refer to the specific program descriptions in this catalog for additional admissions information. Information regarding admission requirements for the program(s) of their choice may also be obtained from the Student Personnel Office, College of Education.

**Time Limitations**

The College of Education will accept professional education and specialization coursework completed at this University or at other accredited institutions as follows:

1. Courses completed within the last five years will be accepted.
2. Courses completed over five years but less than ten years ago: For courses taught by College of Education faculty, approval from the appropriate departmental chairperson is required before credit is granted. For courses taught by other than College of Education faculty, approval from the chairperson of the department that requires the course is necessary.
3. Courses completed ten years ago or longer will count as elective credit only.

**Admission to Internship Experience**

The final internship experience is observing and teaching in elementary, secondary, or exceptional schools. Special vocational sites are arranged through the Adult and Vocational Education Department. Other than Senior Seminar and EEX 4070, students may not enroll in additional courses during the semester in which the final internship occurs.

Special requirements for enrollment in the final internship and seminar courses are:

1. Admission to the College of Education.
3. Completion of an application for the final internship by the deadlines published in the College of Education.
4. Completion of the professional education sequence except for measurement/special education/computers in education courses, a minimum of two thirds of specialization, no course work with less than a "C" grade, and a minimum of 2.5 grade point average in each area; or an overall 2.5 grade point average. The Elementary/Early Childhood programs require a combined grade point average of 2.5 in professional education and specialization as well as an overall 2.5, and completion of all teaching specialization except two of the following: ARE 4313, HLP 4722, MUE 4210.
5. Acceptance by a school approved by the College of Education and the Florida Department of Education.
6. Completion of other requirements prescribed by the applicable program.

Application for internship must be made by the published deadlines noted below. The applications may be obtained in the Office of Clinical Education and Academic Advising. Applications for Fall Semester are due the preceding January 30. Applications for Spring Semester are due the preceding June 15.

**Admission to Classes**

The control of entry to all classes on all campuses will rest with the department chairperson. Each department will establish and publish priorities for allowing students to enroll in classes. Students not in attendance at the first class meeting will be dropped from the course.

**College Requirements for Graduation**

To be certified by the College of Education for graduation, a student must have earned 120 semester hours credit including the last 30 credit hours on campus. A minimum overall USF grade-point average of 2.5 or a minimum GPA of 2.5 in teaching specialization courses and a minimum GPA of 2.5 in the Professional Education sequence. The Elementary/Early Childhood programs require a combined grade point average of 2.5 in professional education and specialization as well as an overall 2.5. Satisfactory completion of the internship is also required. Prior to completion of the internship, the student must pass both the subject area and the Professional Education sections of the Florida State Teacher Certification Examination. A student must also have completed the major requirements in an approved teaching program (which includes general preparation, teaching specialization, and professional preparation). A minimum of 30 hours after admittance to an upper level program. Students pursuing their first bachelor's degree must have passed all parts of the
COLLEGE OF EDUCATION

UNIVERSITY OF SOUTH FLORIDA - 1993/94 UNDERGRADUATE CATALOG

CLAST examination, and have completed foreign language, general distribution, "Gordon Rule," and the summer school attendance requirement.

Specific Requirements
A minimum of 120 credit hours including the following:
- General Distribution 40 credit hours
- Professional Education Core 32.49 credit hours
- Teaching Specialization 27.49 credit hours

Program requirements: Check individual program descriptions for requirements beyond the college minimum.

Normally, the college will recommend the granting of a Bachelor of Science degree. To obtain a Bachelor of Arts degree, the student must meet the Foreign Language Competency (see graduation requirements in front of catalog). As part of the 120 credit hours minimum requirement for graduation, students may include elective courses. The courses should be selected in consultation with a faculty advisor. The College of Education permits students to count, as part of the 120-hour requirements, courses in Elective Physical Education and up to 9 hours of USF Army or Air Force ROTC credits.

SunCoast Area Teacher Training Program (SCATT)
SCATT is an award-winning honors-level teacher training program founded on the premise that prospective teachers are the key to influencing the future of our society. The SCATT program offers two options for College of Education majors to enhance their education, Option 1: the existing SCATT Honors Program and Option 2: the SCATT Honors Course Sequence.

The existing Program is designed to provide bright and talented pre-service teachers with challenging activities, workshops, and seminars to aid and encourage them to become highly qualified, dedicated educators. The wide variety of opportunities offered to SCATT members provides them with an enhanced view of education as a field of study and with experiences which extend "above and beyond" the requirements of the present academic program. SCATT also helps prospective employers identify pre-service teachers who have demonstrated high levels of academic achievement, ability, leadership and a commitment to the profession.

The SCATT Honors Course Sequence includes: early field experiences in the schools with SCATT supervising teachers, intensive study in current teaching strategies, exposure to top role models in the field of education, and a support network created to increase options for maximum success. Students who are selected to participate in the SCATT Course Sequence automatically become members of the existing SCATT Honors Program. To receive SCATT Honors Course status, the entire three-course sequence is required. To be selected for the SCATT Honors Course Sequence, students must apply, meet SCATT Program eligibility requirements, have three semesters remaining prior to their final internship, and participate in an individual interview.

Eligibility Requirements for SCATT
Students who have been admitted to the USF College of Education and who have achieved a minimum score of 21 or 22 (depending on the date of the exam) on the American Education and who have achieved a minimum score of 21 or 22 (depending on the date of the exam) on the American

Florida Department of Education Requirements for Teacher Certification
College of Education programs are reviewed by the Florida Department of Education. Those programs meeting the requirements of Chapter 6A-5, Rules of the State Board of Education of Florida, are given "Approved Program" status. These rules are subject to rapid changes and programs must change accordingly to maintain their "approved" status. Program requirements listed in this catalog are needed for graduation. To be eligible for a Florida Educator's Certificate, the student must complete all requirements listed on applicable current program checklist, complete the "Professional Orientation Program" and pass all parts of the State Teacher Certification Examination.

Programs Leading to the Baccalaureate Degree
The College of Education has programs leading to the Bachelor of Science degree in the following fields:

Program                          Department                  Code
Art Education                    Secondary Education           (ARE)
Behavior Disorders               Special Education             (EDD)
Business and Office              Adult & Vocational Education          (EVT)
Education                      Education                    (EDC)
Distributive and                Adult & Vocational Education          (EOC)
Marketing Education              Education                    (ECC)
Elementary/Early                 Not currently being offered         (ECC)
Childhood Education              Education                    (ECC)
Elementary Education             Education                    (ECC)
Foreign Language                 Secondary Education           (ECC)
Industrial-Technical             Secondary Education           (ECC)
Education                      Secondary Education           (ECC)
Mathematics Education            Secondary Education           (ECC)
Mental Retardation               Special Education             (ECC)
Education                      Music Education               (ECC)
Instrumental                     Music Education               (ECC)
Vocal                           Music Education               (ECC)
General                         Music Education               (ECC)
Physical Education               Professional Physical Education (ECC)
Elementary                      Vocational Education          (EED)
Secondary                      Vocational Education          (EED)
Wellness                        Vocational Education          (EED)
Science Education                Secondary Education           (EED)
Biography                        Secondary Education           (EED)
Chemistry                        Secondary Education           (EED)
Physics                          Secondary Education           (EED)
Social Science Education         Secondary Education           (EED)
Specific Learning Dis-           Special Education             (EED)
abilities Education              Special Education             (EED)

See Departmental Section for specific program requirements.

A B.A. degree may be awarded when competency in a foreign language is demonstrated.

Teacher Education Program
There are three distinct areas in the teacher education program, and all teacher candidates must meet certain minimum requirements in each. The three areas and their requirements are as follows:

1. General Distribution Requirements
   (40 credit hours)
   The five areas of General Distribution and the specific requirements are as follows:
   
   Area I - English Composition:
   ENC 1101 and ENC 1102
   
   Area II - Fine Arts and Humanities:
   A minimum of six hours of selected courses (i.e., course must include the writing requirement) from any of two of the following departments: American Studies, Art, Classics, Dance, English, Foreign Languages, Humanities, Music, Philosophy and Theatre.
   
   Area III - Mathematics:
   A minimum of six hours. MAC 2102/2202 or more advanced courses offered by the Mathematics Department. Logic, Statistics and selected Engineering computer courses are acceptable for three hours of the requirement.
Area IV Natural Sciences: A minimum of six hours of courses offered by the Departments of Astronomy, Biology, Chemistry, Geology, or Physics.

Area V Social and Behavioral Sciences: a. For EDE and ECC majors, two American History courses, or one American History and one American National Government course. b. For all other programs: A minimum of six hours of any of the courses taught in Social and Behavioral Sciences. PSY 2012 and SYG 2000 are recommended. See the University General Distribution Requirements section of the catalog for exceptions and additional approved courses.

Courses required for a student's major program will not be counted in the total 40 hours although areas of general distribution requirements may be waived where appropriate. A student will be limited to 8 hours in a single department toward distribution requirements in any area. Students may not elect to take any of the above S/U.

2. Professional Education Core (36-45 credit hours)
The required courses in the professional education core are as follows:

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EDF 3122 Learning and the Developing Child (4)  
(for Elementary or Early Childhood Majors)  
EDF 3214 Human Development and Learning (3) 
(for all other programs)  
EDF 3604 Social Foundations of Education (3)  
EDG 4620 Curriculum and Instruction (4)  
EDF 4430 Measurement for Teachers (3)  
* EME 4402 Intro. to Computers in Ed (2)  
** EEX 4070 Exceptional Student Ed Methods Course(s) (4-6)  
**** Internship and Seminar (12)**

*** Reading Requirement (2-3)  
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*Not required in Music Education.  
**Not required in Special Education.  
***Elementary, Physical Education, Early Childhood and Special Education internships (or practicums) are 18-23 semester hours.  
****Not required in Music, Foreign Language Education, or Physical Education. Reading is in the specialization for EDE, ECC, and Special Education programs.

3. Teaching Specialization Preparation (27-49 credit hours)
Course requirements in the area of teaching specialization vary according to field of specialization. These specialization requirements are listed with the programs that follow in the departmental section.

DEPARTMENTS AND PROGRAMS

The College of Education is organized into 11 departments. Each department has one or more programs which are listed alphabetically in the following departmental section.

Department of Adult and Vocational Education
The Adult and Vocational Education Department at the University of South Florida offers degrees through the College of Education designed to prepare teachers and leaders in the various fields of Vocational Education. Certification programs leading to the Bachelor of Science (B.S.) degree are: Business and Office Education, Distributive and Marketing Education, Industrial-Technical Education, and Technology Education.

BUSINESS AND OFFICE EDUCATION
Requirements for the B.S. Degree (BTE):
General Distribution and Professional Education requirements are listed under Teacher Education Program.

In Business Education specific program competencies in the specialization must be demonstrated through satisfactory completion of BTE 4909. Special prerequisites are required for BTE 4364, which are taken concurrently in the semester immediately prior to the supervised internship as approved by an advisor.

Specialization Requirements (43 cr. hrs.):
Accounting (2 courses) Office Information Processing/Economics (2 courses) Word Processing Business Communications Principles of Vocational Education Principles of Management Business Law Office Occupations Procedures Electives (6 hours approved by advisor)
Introduction to Computers General Office/Administrative competencies met through successful completion of BTE 4909.

DISTRIBUTIVE AND MARKETING EDUCATION
Requirements for the B.S. Degree (DEC):
General Distribution and Professional Education requirements are listed under Teacher Education Program.

Specialization (42 credit hours):
ACG 2001 DEC 4941 ECO 2013 MAR 3023 
DEC 4161 ECO 2023 MAR 4403 MAR 3823 
EVT 4065 FIN 3100 FIN 3105 MAR 4231 
MAR 4333

Distributive and Marketing Education undergraduates are required to accumulate a total of five (5) hours of credit in DEC 4941 Supervised Field Experience to round out and broaden the vocational background of the student to properly fulfill certification requirements. Students will also be able to receive credit for participation in the professional activities of the Delta Epsilon Chi, chapter of the Distributive Education Clubs of America, which is an integral part of the Distributive and Marketing Education teacher preparation curriculum.

INDUSTRIAL-TECHNICAL EDUCATION
Requirements for the B.S. Degree (EVT):
General Distribution and Professional Education requirements are listed under Teacher Education Program.

INDUSTRIAL-TECHNICAL EDUCATION TRACK:
Enrollment in the Industrial-Technical Education program is restricted to persons with employment experience qualifying them to teach Industrial, Technical, Health Occupations, or Public Service.

Special provision is made for students to satisfy four (4) of the required six (6) years of work experience in a specific occupation by completing an Associate in Science degree program in a technologically specialized degree from one of the State Community Colleges or successfully completing an appropriate occupational competency exam. Acceptability of work experience will be determined by the program advisor.

Students must validate up to 30 semester hours of credit through the Occupational Competency Testing Program, or appropriate licensure or certificate.

Required: 38 semester hours.
EVT 4065 EVT 4165 *EIV 4210 EVT 4562 
ADE 4384 EVT 4367 EVT 4365 EIV 4360 
EVT 4946 EVT 4084 *Another course may be substituted with advisor's approval.

TECHNOLOGY EDUCATION (IND. ARTS) TRACK:
Within the EVT program, students can pursue state certification in Technology Education. In general, students entering into the Technology Education program are expected to have successfully completed, at a community college, most of the technical laboratory courses required for Florida Teacher Certification. Teacher certification requires students to have 30 semester hours, with three (3) semester hours in each of the following areas:
(a) materials and processes, (b) drafting and design, (c) energy, (d) graphics, (e) electronics, (f) construction, and (g) industrial systems.
Students entering this program will have their transcripts evaluated to determine if all technical course requirements have been met. If the student has not completed the technical course requirements, the deficiencies will be corrected by enrolling into the required course(s) at a community college. Since this evaluation procedure is unique to the Technology Education Program, the application for admission should clearly indicate the desired major field as Technology Education.

The program of studies includes both course work and extensive field experience in school settings. This is to enable students to integrate theory with teaching practice. Technology Education students must complete the General Distribution Requirements of 40 semester hours, the Professional Education Core Requirements of 40.41 semester hours, the Technical Course Requirements of 30 semester hours, and 12 semester hours in Adult and Vocational Education. The requirements in Adult and Vocational Education are as follows:

Required: 23 semester hours including:
- EVT 4065
- EIV 4210
- EVT 4165
- EIA 3192
- EIA 4360
- EVT 4365
- Plus electives selected with advisor approval.

Department of Childhood/Language Arts/Reading Education

The Childhood/Language Arts/Reading Education department has the responsibility for the development and supervision of programs leading to the Bachelor of Science degree in Elementary/Early Childhood Education and Elementary Education.

Prerequisites for admission to these programs include two American History courses, or one American History and one American National Government course. One of these must be AMH 2010 or 2020 or the equivalent. These courses may be taken as part of the general distribution requirement.

Elementary Education Certification Programs

Students may complete a state-approved program to be eligible for certification in either Elementary or Elementary-Early Childhood Education. Pending new certification requirements, Early Childhood Education will be established as age three to grade three. Degree requirements are subject to change. The current program of studies includes both coursework and extensive field experiences in a school setting to enable students to integrate theory with teaching practice. Upon successful completion of the required courses in the elementary major, elementary majors will be eligible to apply for certification in grades one through six. Elementary-Early Childhood majors will be eligible to apply for certification for kindergarten through 6th grade upon completing the requirements of this program, so students electing to pursue either the Elementary or the Elementary-Early Childhood major will be assigned to a specified sequence of courses to be followed throughout the program enrollment. This sequence includes two semesters of part-time field experience and one semester of full-day internship. All part-time internship courses must be successfully completed as a member of an internship team in designated local schools under the supervision of a faculty team leader. Students who withdraw from Level I or Level II Internships, or who make an unsatisfactory grade, must petition the department Professional Standards Committee before they will be allowed to repeat either internship. Elementary and Elementary-Early Childhood majors are required to complete a concentration of 15 hours in one of the following areas: English, Mathematics, Science, Social Science, or Foreign Language.

Students must have an overall USF GPA of 2.5 and a GPA of 2.5 in the combined Professional Core and Teaching Specialization prior to internship and graduation.

Prior to the final internship, students can have no more than five (5) courses remaining from the following courses: EDF 4430, EEX 4070, EME 4402, ARE 4313, HLP 4722 and MUE 4210. Only EEX 4070 may be taken with the final internship.

Part-time students (students planning to take 9 hours or less per semester) must participate in a modified program schedule and plan to meet internship requirements associated with the programs. These requirements include being available to participate in the internships during regular school hours as specified in the modified program.

Internships

The Elementary and Elementary-Early Childhood preservice teacher education programs require all students to complete a sequence of three internship courses beginning with the student's first semester of program enrollment. (Total 22 semester hours)

Elementary Education

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

General distribution and Professional Education requirements are listed under Teacher Education Program. The Elementary program also includes the following methods course in the Professional Education requirements:

EDE 4301

The major consists of 32 semester hours of elementary specialization courses as follows:

- ARE 4313
- LAE 4414
- MUE 4210
- RED 4310
- HLP 4722
- MAE 4310
- SCE 4310
- RED 4511
- LAE 4314
- MAE 4326
- SSE 4313

Students are advised that the Elementary Education specialization will require an enrollment of more than the traditional four semesters of the junior and senior years in order to complete the program specialization courses and the required sequence of internship. (Note: The Elementary program is under review which will result in course changes during the 1993-94 academic year.)

Elementary/Early Childhood Education

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

General Distribution and Professional Education requirements are listed under Teacher Education Program. The Elementary/Early Childhood program also includes the following methods course in the Professional Education requirements:

EDE 4301

The major consists of 42 semester hours of Elementary/Childhood Education specialization courses as follows:

- ARE 4313
- HLP 4722
- MUE 4210
- RED 4310
- EEC 4203
- LAE 4414
- EEC 4310
- SCE 4310
- RED 4511
- EEC 4303
- MAE 4310
- EEC 4705
- MAE 4326

Students are advised that the Elementary/Early Childhood specialization will require an enrollment of more than the traditional four semesters of the junior and senior year in order to complete the program specialization courses and the required sequences of internships.

Department of Secondary Education

General Distribution and Professional Education requirements are listed under Teacher Education Program.

The following programs are housed in the Department of Secondary Education:

- Art Education
- English Education
- Foreign Language Education
- Mathematics Education
- Science Education
- Social Science Education

The undergraduate programs are designed to prepare students to meet Florida teacher certification requirements and to become highly competent secondary teachers. Specialized courses in the teaching of mathematics, science, and social science are also offered for students majoring in elementary, early childhood, and special education.

Internship Program. The Department of Secondary Education internship is offered in the fall and spring terms.
ART EDUCATION (ARE):
Requirements for the B.S. Degree

At the time of application to upper level, each Art Education student must submit slides or portfolio to the head of the department. To assist transfer students in selection of courses, they must submit work prior to or during registration.

After completing studio requirements for state certification each student may elect to emphasize painting, sculpture, graphics, ceramics, or photography/cinematography for the remaining studio electives.

In addition to the general distribution and professional education requirements, the following courses constitute a program of study:

Art Education (15 credit hours)
- ARE 3044
- ARE 4443
- ARE 3354
- ARE 4440
- ARE 4642

In these courses students will have the opportunity to work at the elementary school and high school levels.

Specialization (36 cr. hours)

- ART 2202C
- ART 3110C
- ART 3510C
- ART 3701C
- ARH 4450
- One of the following: ART 3420C or ART 3470C
- ART Studio Electives approved by adviser
- ART History Elective

Plus the following:
- Two hours from either Music or Dance curricula or from the Theater Department, and one aesthetics or one art criticism course.

ENGLISH EDUCATION (ENE):

General Distribution and Professional Education requirements are listed under Teacher Education Program.

1. ENGLISH:
- A minimum of 39 semester hours, including:
  - CRW 2100, ENC 3310, and LAE 4464
  - One of the following:
    - EDG 4320 or MMC 3602
  - One of the following:
    - ENG 3105 or LIT 3073
    - ORI 3000 or SPG 2073
  - One of the following:
    - ENL 3331 or ENL 3332
  - One of the following:
    - LIN 3430 or LIN 4370
    - LIN 3810, LIN 3801, or ENG 4060/5067
    - Two of the following:
      - AML 3031, AML 3032, or AML 3051

2. ENGLISH EDUCATION:
- Nine semester hours in methods of teaching English at the middle and secondary levels: LAE 4325, LAE 4530, and LAE 4642. LAE 4530 must be taken concurrently with one of the other methods courses, the fall or spring immediately preceding internship.

FOREIGN LANGUAGE EDUCATION (FLS):

General Distribution and Professional Education requirements are listed under Teacher Education Program. A minimum of 30 credit hours beyond intermediate course must be earned in the foreign language. Programs are available for Spanish, French and German.

1. Foreign language (30 credit hours)
   - grammar, conversation, composition 12
   - literature 6
   - culture and civilization 6
   - linguistics 3
   - language elective 3

2. Foreign Language Education
   - 9 credit hours in methods of teaching a language at the elementary and secondary levels, including a practicum.
     - Fall Term: FLE 4314 (elementary)
     - Spring Term: FLE 4333 (secondary) and FLE 4334 (practicum)

MATHEMATICS EDUCATION (MAE):

Admission Requirements: In addition to the College requirements, students must complete MAC 3311 or an equivalent course.

General Distribution and Professional Education requirements are listed under Teacher Education Program.

1. Mathematics:
   - 38 semester hours in mathematics above the 2000 level.
   - Required courses are:
     - MAC 3311 MAD 3100 MSH 5405
     - MAC 3312 MAS 3103 MTG 4212
     - MAC 3313 MAS 4301 STA 3023
     - CGS 3422 MAS 5215

2. Mathematics Education:
   - Eleven hours in teaching mathematics at the secondary level.
   - Required courses are:
     - MAE 4320 MAE 4551 MAE 4330
     - CGS 4010

SCIENCE EDUCATION (NSB, NSC, NSP):

Admission requirements: General Distribution and Professional Education requirements are listed under Teacher Education Program. In addition to the College requirements, the minimum requirement for acceptance into a program is the completion of 16 semester hours of required science courses.

Course Requirements:

1. SCIENCE:
   - A minimum of 32 semester hours in the discipline of major concentration (Biology, Chemistry, or Physics) and a minimum of 16 semester hours within the natural sciences outside the concentration area.

2. SCIENCE EDUCATION:
   - As a minimum, satisfactory completion of the following courses: PHI 3404, SCE 4305, SCE 4320, and SCE 4330. These courses deal with philosophy of science, communication skills and the teaching of science at the middle grades and secondary school levels. In addition, a Physics major will need a three credit hour course in computer applications in science.

SOCIAL SCIENCE EDUCATION (SSE):

General Distribution and Professional Education requirements are listed under Teacher Education Program.

Course Requirements:

1. SOCIAL SCIENCE:
   - A minimum of 40 semester hours, including:
     - ECO 2023 GEO 3042 EUH 2030
     - ECO 2013 AMH 2010 EUH 2031
     - GEO 3013 AMH 2020 POS 2041
     - One of the following:
       - AFH 3100 or LAGH 3200
     - One of the following:
       - POS 2102 POS 4105
       - POS 3142 INR 3002
     - One of the following:
       - SYO 3010 SYO 3500 SYP 5405
       - SYP 3000 SYD 4410

2. SOCIAL SCIENCE EDUCATION:
   - Eight semester hours in methods of teaching and communication skills in Social Studies: SSE 4333, SSE 4334, and SSE 4640.

Department of Educational Measurement and Research

The Department of Educational Measurement and Research provides support services for undergraduate programs. Students in all programs are required to take EDF 4430, Measurement for Teachers. This course develops skills and understandings related to test
Department of Music Education

MUSIC EDUCATION (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 performing 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 2010 (the specific requirements for MUS 2010 as set by the music faculty). For other degree requirements see College of Education requirements and the University's General Distribution and graduation requirements. Note exceptions applicable to this program.

1. Instrumental Specialization (72 cr. hrs.)
Music Education courses (20 cr. hrs.)
MUE 2090 (2) MUE 3450 (1) MUE 4311 (3)
MUE 3421 (1) MUE 3451 (1) MUE 4323 (2)
MUE 3422 (1,1) MUE 3460 (1) MUE 4332 (3)
MUE 3423 (1,1) MUE 3461 (1) MUE 4480 (2)
* Not required of woodwind majors
** Not required of brass majors
Music courses (min. 52 cr. hrs.)
MUT 1111 (3) MUT 2117 (3) MUH 3300 (2)
MUT 1112 (3) MUT 2246 (1) MUH 3301 (3)
MUT 1241 (1) MUT 2247 (1) MUH 3302 (3)
MUT 1242 (1) MUT 2211 (3) MUG 3101 (2)
MUT 2116 (3)
Applied Music (Principal) 12 cr. hrs. with a minimum of 4 hours at the 3000 level and concurrent registration in MUS 2010.
Music electives (2)
Applied Music Secondary (Techniques - 3 cr. hrs.)
(One each: string, percussion, voice)
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 (2) MUE 3423 (1) MUE 4352 (2)
MUE 3421 (1,1) MUE 3450 (1) or MUE 4351 (1)*
MUE 3422 (1) MUE 3460 (1) or MUE 4361 (1)*
MUE 4331 (3) MUE 4331
One hour courses must be repeated to achieve 16 cr. hrs.
* As determined by audition.
Music courses (min. 56 cr. hrs.)
MUT 1111 (3) MUT 2116 (3) MUL 2111 (3)
MUT 1112 (3) MUT 2117 (3) MUL 3300 (2)
MUT 1241 (1) MUT 2246 (1) MUL 3301 (3)
MUT 1242 (1) MUT 2247 (1) MUL 3302 (3)
MUG 3101 (2)
Applied Music (Principal) 12 cr. hrs. through a minimum of 4 hours at the 3000 level and concurrent registration in MUS 2010.

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 (15 cr. hrs.)
MUE 3460 (1) or MUE 4361 (1)*
MUE 3450 (1) or MUE 4351 (1)*
MUE 2090 (2)
MUE 3421 (1) MUE 4311 (3)
MUE 3422 (1) MUE 4330 (3)
MUE 3423 (1) MUE 4352 (2)
One hour courses must be repeated to achieve 16 cr. hrs.
* As determined by audition.

Music Courses (min. 56 cr. hrs.)
MUT 1111 (3) MUT 2116 (3) MUL 2111 (3)
MUT 1112 (3) MUT 2117 (3) MUL 3300 (2)
MUT 1241 (1) MUT 2246 (1) MUL 3301 (3)
MUT 1242 (1) MUT 2247 (1) MUL 3302 (3)
MUG 3101 (2)
Applied Music Principal 12 cr. hrs. with a minimum of 4 hours at the 3000 level and concurrent registration in MUS 2010.
Applied Music Secondary Techniques (3 cr. hrs.)
(one each: string, percussion, voice)
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)

School of Physical Education
The School of Physical Education, Wellness, and Sports Studies teaches a variety of Elective Physical Education courses and conducts Professional Physical Education Teacher Preparation K-8 and 6-12 Programs and a Wellness Leadership Program.

ELECTIVE PHYSICAL EDUCATION PROGRAM
Elective Physical Education offerings in the College of Education are designed to provide opportunities for all students in the University to develop desired skills and insight into the role physical activity plays in their lives. Laboratory experiences in recognized sports activities allow students to select and develop proficiency appropriate for leisure pursuits and personal development. Human movement courses expand personal awareness of the effects of physical activity through examination of the interaction between the needs and abilities of the person and the benefits of the activity. Special competency courses prepare interested students with skills and techniques applicable for conducting or directing community activities related to sport and movement.

PROFESSIONAL PHYSICAL EDUCATION PROGRAM
Students must choose one of the following programs: a) Physical Education Grades K-8 (Florida Teacher Certification); b) Physical Education Grades 6-12 (Florida Teacher Certification); or c) Wellness Leadership (Non-certification).

Requirements for the B.S. Degree (PTE/PTS/PTW)
The two-year program is offered beginning in the junior year and includes mandatory attendance during the summer session between the junior and senior years.
In order to be admitted to the Program, all students must participate in a selective admissions procedure. Enrollment in the Program is limited and students can only enter during Semester I of each year. In addition to applying to the University, all students must apply directly to the Department before May 1 for priority admission consideration. Students applying after May 1, and before the final deadline of June 1, will be accepted only on a space-available basis. Requests for admission to the Program should be directed to:

Director
School of Physical Education, Wellness, and Sports Studies
College of Education
University of South Florida
4202 E. Fowler, PED 214
Tampa, Florida 33620-8600

Course Requirements:
1. PROGRAM PREREQUISITES FOR ALL TRACKS:
   - APB 3190 Human Anatomy & Physiology
   - HSC 2400 First Aid

2. CORE COURSES FOR ALL TRACKS:
   - EME 4402 Introduction To Computers In Education
   - PEQ 3101 Aquatics
   - PET 3012 Personal/Professional Development Seminar
   - PET 3310 Kinesiology
   - PET 3351 Exercise Physiology I
   - PET 3422 Instructional Design & Content: Movement Experiences
   - PET 4622 Care & Prevention of Physical Injuries

3. ADDITIONAL REQUIRED COURSES FOR K-8 TRACK: (PTE)
   - EDF 3122 Learning & The Developing Child
   - EDF 4430 Measurement for Teachers
   - EDF 3604 Social Foundations of Education
   - PET 3031 Motor Development & Assessment
   - PET 3421 Curriculum and Instruction in Physical Education
   - PET 3441 Instructional Design & Content: Middle School Physical Education
   - PET 3640 Adapted Physical Education
   - PET 3799 Career Decision Making & Professional Ethics
   - PET 3943 Physical Education Internship: Middle School
   - PET 4141 Trends & Tasks: Elementary Physical Education
   - PET 4401 Organization and Administration of Physical Education Programs
   - PET 4432 Instructional Design & Content: Physical Education Elementary
   - PET 4433 Instructional Design & Content: Physical Education Elementary II
   - PET 4934 Senior Seminar in Elementary Physical Education
   - PET 4942 Physical Education Internship: Elementary
   - PET 4946 Associate Teaching Physical Education: Elementary

4. ADDITIONAL REQUIRED COURSES FOR 6-12 TRACK: (PTS)
   - EDF 3604 Social Foundations of Education
   - EDF 4430 Measurement for Teachers
   - EDF 4131 Learning and the Developing Adolescent
   - PET 3031 Motor Development & Assessment
   - PET 3421 Curriculum and Instruction in Physical Education
   - PET 3441 Instructional Design & Content: Middle School Physical Education
   - PET 3640 Adapted Physical Education
   - PET 3799 Career Decision Making & Professional Ethics
   - PET 3943 Physical Education Internship: Middle School
   - PET 4142 Trends & Tasks: Secondary Physical Education
   - PET 4304 Principles & Issues in Coaching
   - PET 4401 Organization and Administration of Physical Education Programs
   - PET 4442 Instructional Design & Content: Physical Education Secondary
   - PET 4443 Instruction Design & Content: Physical Education Secondary II
   - PET 4933 Senior Seminar in Secondary Physical Education
   - PET 4944 Physical Education Internship: Secondary
   - PET 4947 Associate Teaching Physical Education: Secondary

5. ADDITIONAL COURSES REQUIRED FOR WELLNESS LEADERSHIP TRACK: (PTW)
   - ADE 4384 Working with the Adult Learner
   - GEY 3601 Behavior Change in Later Life
   - HUN 3201 Nutrition
   - PEP 3940 Practicum in Health Promotion/Wellness
   - PEP 3951 Communication Skills for Wellness Leaders
   - PEP 4941 Wellness Internship
   - PEP 3170 Aquatic Exercise
   - PET 3080 Survey of Wellness Programs
   - PET 4404 Organization & Administration of Wellness Programs
   - PET 4353 Exercise Physiology II
   - PEP 4384 Health Fitness Appraisal & Exercise Prescription

In addition to the above courses, students in the Wellness Leadership Track are required to take a minimum of eight hours (or 4 courses) of the following elective courses which are activity courses related specifically to those found in Wellness Programs. These courses can be taken any time during the two years.

   - PEL 1341 Tennis I
   - PEL 2441 Racketball
   - PEM 2131 Weight Training
   - PEM 2441 Karate
   - PEM 2930 Jogging
   - PEM 2930 Advanced Jogging
   - PEM 2930 Aerobic Dance
   - PEM 2930 Cycling
   - PEM 2930 Str & Aer Dev
   - PEM 2930 Swim Aerobics
   - PEM 2930 Triathlon
   - PEM 2930 Aquatic Fitness
   - PEN 1121 Swimming I
   - PEN 2113 Life Saving
   - PEN 2172 Swimming II
   - PET 3931 Teaching Aerobic Dance/Exercise

Department of Psychological and Social Foundations of Education

The Department of Psychological and Social Foundations of Education provides courses for all students majoring in the wide array of undergraduate programs available in the College of Education. These courses contribute to the students' understanding of the general education enterprises and are considered foundational to later professional specialization.

   - EDF 3122 EDF 3604 EDF 4909 IDS 3115
   - EDF 3214 EDF 3610 EDF 5136
   - EDF 3228 EDF 4131 EDF 5285
   - EDF 3542 EDF 4905 EDF 5672

Department of Special Education

The Department of Special Education prepares teachers to work with children who have emotional and behavioral disabilities, mental retardation, and specific learning disabilities. The undergraduate program is a State-approved program that leads to certification in one of the three areas.

Students are required to meet University and College of Education entrance requirements prior to enrollment in the Department. Upon admission, students affiliate with the campus on which they wish to take their program of studies. Students may not register for courses on other campuses without permission. On the Tampa Campus, students are assigned to teams and a faculty advisor. All courses are taken with the assigned team. Since no teams start in the summer, there are no summer admissions. This sequence includes three semesters of part-time field experience and one semester of full-day internship. All part-time field experiences must be successfully completed as a member of a team concurrently with specified course in designated local schools under the supervision of a faculty member. Field experiences begin during the second semester of a student's enrollment. Students are responsible for providing transportation to their experience sites.

In some instances students may pursue a part-time program (9 hours or less a semester). This requires that students be available to
participate in field experiences and concurrent classes during regular school hours.

Emotional and Behavioral Disabilities (EH Certification)
Students seeking the B.S. degree with certification in EH are required to take the following courses:

- EED 4011
- EEX 4221
- EEX 4604

EED 4941
- EEX 4243
- MAE 4310

EEX 3010
- EEX 4846
- RED 4310

One of the following:
- ARE 4313
- MUE 4210
- SCE 4310

Two of the following:
- EEC 4706
- LAE 4314
- LAE 4414

- RED 4511
- SPA 4000

Mental Retardation (MR Certification)
Students seeking the B.S. degree with certification in MR are required to take the following courses:

- EEX 3010
- EEX 4243
- EMR 4941

EEX 4221
- EEX 4604
- MAE 4310

EEX 4846
- EMR 4011
- RED 4310

One of the following:
- ARE 4313
- MUE 4210
- SCE 4310

Two of the following:
- EEC 4706
- LAE 4314
- LAE 4414

- RED 4511
- SPA 4000

Specific Learning Disabilities (LD Certification)
Students seeking the B.S. degree with certification in LD are required to take the following courses:

- EEX 3010
- EEX 4243
- ELD 4941

EEX 4221
- EEX 4604
- MAE 4310

EEX 4846
- ELD 4011
- RED 4310

One of the following:
- ARE 4313
- MUE 4210
- SCE 4310

Two of the following:
- EEC 4706
- LAE 4314
- LAE 4414

- RED 4511
- SPA 4000

Student Organizations and Activities

College of Education Student Council

The College of Education Student Council represents the interests of education majors in regard to policies and needs of the college. The Council leadership team consists of five officers (President, Vice-President, Secretary, Treasurer, and Historian) and nine Student Government Senators. Elections are held annually in November; all pre-education and education majors are eligible to vote for all officers.

C.E.S.C. activities enhance members' professional growth, provide opportunities for professional and community service, and serve as a forum for socialization. Any student majoring in education with a minimum GPA of 2.0, is eligible to participate in C.E.S.C.

Childhood Education Organization

The Association for Childhood Education is a non-profit professional organization concerned with the education and well-being of children two to twelve years of age. Members are located throughout the United States.

The USF chapter works directly with children through observation, projects, and programs. In addition, it provides opportunity for students to attend study conferences throughout the state of Florida which allows the student an opportunity for professional growth and exchange of professional ideas. Membership is open to all students, including freshmen, concerned with children two to twelve years old.

Student Council for Exceptional Children

The Student Council for Exceptional Children is an organization of those members of the University interested in the education of the exceptional child. Various exceptionalities included are Gifted, Emotionally Disturbed, Physically Handicapped, Mentally Retarded, and Culturally Differentiated.

Activities of the USF Chapter include field trips to various special educational facilities, prominent speakers, seminars, state and national conventions, and social events. The specific activities are determined by the members and the exceptionalities in which they are interested. All interested students are invited to join.

County Music Educators National Conference

Student Music Educators Conference is an affiliate of the Music Educators National Conference and the Florida Music Educators Association. It is devoted to the furtherance of knowledge and understanding of music education on all levels. Membership is open to any student in the University of South Florida who is interested in the teaching of music.

National Education Association Student Program

The National Education Association student program is designed to provide professional growth opportunities, leadership training and membership benefits that are available to other members of the National Education Association, including $1 million liability insurance coverage while engaged in student teaching internship. Membership is open to all students.

Phi Beta Lambda

Phi Beta Lambda is a business fraternity open to all students, including freshmen, expressing an interest in Business. The emphasis is on promoting free enterprise and instilling leadership qualities.

Kappa Delta Pi

Kappa Delta Pi is an international co-educational honor society in Education. The society was founded to recognize and encourage excellence in scholarship, high personal standards, improvement in teacher preparation, and distinction in achievement.

Physical Education Association (PEA)

The Physical Education Association (PEA) is open to all students enrolled in the Physical Education Program. Social and professional meetings are conducted throughout the year to promote interaction within the organization.

Mathematics Education Club

The role of this organization shall be to provide an informative and supportive environment for all members, encourage scholarship, and provide a helpful atmosphere for students progressing through the Mathematics Education program.

Membership shall be available to any student in good standing who expresses interest in the Mathematics Education program at the University of South Florida.

Association for Library and Information Students

This is a professional organization associated with the Library, Media, and Information Studies Department and is open to all members of the university community interested in librarianship.

The USF group provides programs and guest speakers of interest to the campus community and publishes a newsletter for its members. It is the official voice of students in the department and members of the association are included on faculty-student committees within the department.

Delta Epsilon Chi of America (DECA)

The College Chapter of DECA is an integral part of the Distributive and Marketing Education and Marketing Teacher Preparation Program at the University of South Florida and provides Distributive Education majors with leadership opportunities, social experience, learning activities and professional involvement.
Minority Organization of Students in Education
The Minority Organization of Students in Education is organized to provide students with experiences that will facilitate the educational and professional growth of its members. This is achieved by enriching the students' experiences, informing them of various opportunities and involving them in activities. Guest speakers are invited to meetings to discuss topics which are of interest to the members. Resource people are used to inform students of employment and graduate school opportunities. Members of M.O.S.E. sponsor and participate in community service programs.

Science Education Association (SEA)
The Science Education Association provides a supportive environment for students majoring in science education, although membership is open to anyone interested in science. SEA plans field trips, guest speakers, and the compiling of a classroom science activities file for education majors.
COLLEGE OF ENGINEERING

UNIVERSITY OF SOUTH FLORIDA - 1993/94 UNDERGRADUATE CATALOG

The College of Engineering offers undergraduate and graduate programs to prepare students for a broad spectrum of professional careers in engineering. The undergraduate programs of the College are designed to provide students with a sense of human values and the scientific/technical foundation necessary for a lifetime of continued learning.

The programs offered by the College of Engineering to meet the diverse requirements of the future cover three areas: Professional Engineering, Applied Science, and Technology. The specific degrees and sequences offered are as follows:

- Bachelor of Science in Chemical Engineering (B.S.Ch.E.)
- Bachelor of Science in Civil Engineering (B.S.C.E.)
- Bachelor of Science in Computer Engineering (B.S.Cp.E.)
- Bachelor of Science in Electrical Engineering (B.S.E.E.)
- Bachelor of Science in Engineering (B.S.E.)
- Bachelor of Science in Industrial Engineering (B.S.I.E.)
- Bachelor of Science in Mechanical Engineering (B.S.M.E.)
- Bachelor of Science in Computer Science (B.S.C.S.)
- Bachelor of Science in Information Systems (B.S.I.S.)
- Bachelor of Science in Engineering Science (B.S.E.S.)

The Accreditation Board for Engineering and Technology, Inc. (ABET), formerly the Engineers' Council for Professional Development, has inspected and accredited the curricula of the College of Engineering defined by the Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Industrial Engineering, and Mechanical Engineering. The Bachelor of Science program in Computer Science is accredited by the Computing Sciences Accreditation Commission (CSAC) of the Computing Sciences Accreditation Board (CSAB), a specialized accrediting body recognized by the Council on Post-secondary Accreditation (COPA) and the U.S. Department of Education.

The above spectrum of program offerings provides the prospective student with a choice of avenues depending upon individual interests, career objectives, and capabilities for a significant technological contribution. These programs are described in more detail under their respective catalog headings.

Laboratory experience as well as real-world participation in technological problem-solving is a key aspect of a professional engineer's college education. The College of Engineering, in implementing this need, augments its own modern laboratory and research facilities by close contact with the professional societies and the many industries in the metropolitan Tampa Bay area.

Students interested in particular programs offered by the College of Engineering should direct their inquiries to the College of Engineering marked for the attention of the following:

- Area of Interest
- Contact
- Engineering Professional Programs
- Specific Department or Advising Office
- Engineering Science
- Science, Information Systems
- Computer Service Courses
- Department of Computer Science & Engineering

PROFESSIONAL ENGINEERING

The College of Engineering recognizes that modern engineering solutions draw on knowledge of several branches of engineering. It also recognizes that future technological and societal developments will lead to shifting of the relative emphasis on various branches of engineering, triggered by new needs or a reassessment of national goals. For this reason the College's programs include a strong engineering foundation (core) portion, designed to equip the prospective engineer with a broad base of fundamental technical knowledge. To this foundation is added the student's specialization (option) of sufficient depth to prepare him/her to successfully embark on a professional career.

The Bachelor of Science degrees offered in various engineering fields provide the student a broad education with sufficient technical background to effectively contribute in many phases of engineering not requiring the depth of knowledge needed for advanced design or research. However, while the baccalaureate degree is considered the minimum educational experience for participating in the Engineering profession, and as such is the first professional degree, students interested in design and research are strongly encouraged to pursue advanced work beyond the baccalaureate either at this or other institutions. It is becoming increasingly evident that a large segment of today's engineering professionals are involved in some form of post baccalaureate study. Engineers are earning advanced degrees to obtain the information and training necessary to meet effectively tomorrow's technological challenges. All are faced with the continuing problem of refurbishing and updating their information skills and most are obtaining advanced information by means of formal graduate study, seminars, special institutes and other such systems designed for this purpose.

The Bachelor of Science degree program (in a designated engineering field requires 136 semester hours) and the Master of Science degree in the same field may be pursued simultaneously in a program of 166 semester hours called the 5-Year Program. These programs are specifically designed to prepare an individual for a professional career as an engineer. These programs have as their foundation a core of subject material encompassing Humanities, Social Science, Mathematics, Science, and Engineering which is required of all students. In addition to the core subject material, each student will complete specialization studies in a designated field under the direction of one of the administrative departments of the College.

The engineering programs of the College have been developed with an emphasis on three broad aspects of engineering activity: design, research, and the operation of complex technological systems. Students who are interested in advanced design or research should pursue the 5-Year Program leading to a Master of Science degree in Engineering. Other students interested more in operational responsibilities may wish to terminate their initial engineering education at the baccalaureate level.

Preparation for Engineering

Students planning to attend USF's College of Engineering should familiarize themselves thoroughly with the College's admissions standards and requirements, which are more stringent than the University's minimum entrance requirements.

The high school student anticipating a career in engineering should elect the strongest academic program that is available while in high school. Four years each of English, mathematics and science (preferably including Chemistry and Physics), as well as full programs in the social sciences and humanities, are most important to success in any engineering college.

Transfer students intending to pursue an engineering degree at the University of South Florida who lack certain preparation in high school must elect to follow a program to overcome their deficiencies. One alternative might be that such a student take some remedial coursework, and many of which also offer full programs in pre-engineering (first two years' coursework). The University of South Florida generally offers most required pre-engineering courses every semester.

Junior/community college students planning to transfer to the University of South Florida's engineering program at the junior level from a State of Florida operated college or university should follow a pre-engineering program leading to an A.A. degree. All transfer students should complete as much of the mathematics, science and engineering core coursework as is available to them. Transfer students should be aware that the College expects them to meet its admission requirements listed in this section under college regulations for graduation just as it expects its own students to meet these requirements. Junior/community college transfer students should note that in addition to freshman and sophomore level courses, required junior level courses are given each semester thus permitting full continuity in studies for the student. Junior/community college students intending to pursue an engineering program at USF should contact the adviser at their institution and request a course equivalency list.
Although it is not mandatory, the College strongly recommends acquisition or personal access to a personal computer. For further details, contact the Associate Dean of Engineering - Computing Services.

The College of Engineering can assist students who are planning to obtain an Engineering degree from the University of South Florida and who have started their studies elsewhere in formulating a sound total program. Interested students should contact the College's Advising Office (813/974-2684) furnishing sufficient details to permit meaningful response.

Undergraduate Admission to the College
Students may apply to the College of Engineering upon initial entry to the University by declaring Engineering as their intended major. A USF student may apply through the Advising Office in the College of Engineering.

To be considered for admission to the College of Engineering, an applicant must be accepted by the University as a degree-seeking student and be academically in good standing. Admission procedures and requirements are listed below.

Procedures for Applying to the College
1. Students should complete and submit an Engineering Admissions Application to the College of Engineering, Advising Office.
   a. Freshmen and Sophomores must submit copies of high school transcripts, SAT or ACT test scores to the College of Engineering, Advising Office. This is in addition to records received by the University's Admissions Office.
   b. Transfer applicants must furnish transcripts from previously attended institutions to the College of Engineering, Advising Office. This is in addition to transcripts sent to the University's Admissions Office.
   c. Applicants whose native language is other than English must submit TOEFL scores to the College of Engineering. The minimum TOEFL score must be 550.

2. Credentials must be received in the Engineering Advising Office 30 days prior to the date of applicable term. Failure to comply will result in the application being denied by the College of Engineering.

3. Credentials will be held for one year. If application is not updated within that year, credentials must be re-submitted.

Engineering Admission Requirements
1. Freshmen:
   a. Test Scores:
      SAT-composite of 1050 minimum with a minimum quantitative of 550.
      ACT-composite of 25 minimum and mathematics of 25 minimum.
   b. High School Mathematics: Should include sufficient algebra and trigonometry to enter Engineering Calculus I. Math Placement Test Must be passed to enter Calculus I.
   c. High School Grade Point Average of 2.5/4.0.

2. Transfer Students:
   Transfer students must have completed the equivalent U.S.F. Engineering Calculus sequence with a 2.5 GPA; must have completed one year of equivalent U.S.F. General Physics and Chemistry courses with a minimum of 2.5 GPA; must have an overall GPA of 2.5 or better. Grades of "D" in these courses are not accepted by the College of Engineering.

Admission to Programs in Engineering
Once a student has been admitted to the College of Engineering, he/she must then seek admission into one of the specific departments. There are two methods by which a student may be admitted to a particular department: (1) Regular Departmental Admission (RDA), and (2) Direct Departmental Admission (DDA). Each is described below.

Admission to the College of Engineering does not imply that the student has been accepted as a degree-seeking student by a specific Engineering department. Due to limited facilities and resources, it is necessary for students to apply formally for acceptance by a specific Engineering department.

The minimum requirements for acceptance by the departments administering the Engineering programs in Chemical, Civil, Computer, Electrical, Industrial and Mechanical Engineering are:

1. Completion of English, Calculus, Differential Equations, Physics and Chemistry requirements with a grade of "C" or better in each required course.
2. Satisfactory completion of EGN 1002 - Engineering Orientation.
3. Completion of the following courses with either: (1) a grade of "C" or better in each course on first attempt, or (2) a cumulative grade point average of 2.2 in these courses based on all attempts. No grades below a "C" accepted:
   - EGN 2210 - Fortran for Engineers
   - EGN 3311 - Statics
   - EGN 3343 - Thermodynamics I
   - EGN 3443 - Engineering Statistics I
   - EGN 3373 - Introduction to Electrical Systems I
   - EGN 3443 - Engineering Statistics I
   - EGN 3373 - Statics

The minimum requirements for admission to the College of Engineering are:

1. Completion of:
   - COP 3002 & COP 3000L - Intro to Computer Science and Lab
   - EGN 3311 - Statics
   - EGN 3343 - Thermodynamics I
   - EGN 3373 - Introduction to Electrical Systems I
   - EGN 3443 - Engineering Statistics I
   - EGN 3373 - Statics

2. The minimum requirements for admission to the Computer Science and Engineering Department are completion of sections 1 and 2 above and completion of:
   - COT 3100 - Discrete Structures
   - EGN 3373 - Introduction to Electrical Systems I
   - STA 4442 - Introduction to Probability
   - COP 3002 & COP 3000L - Intro to Computer Science and Lab

Students who fail to obtain a "C" grade on the first attempt must obtain a cumulative 2.2 G.P.A. based on all attempts.

Prior to being admitted to a department, a student may be permitted to take no more than two departmental engineering courses.

Direct Departmental Admission
The purpose of Direct Departmental Admission (DDA) is to permit students who have displayed academic potential for completing the rigorous of Engineering to accelerate their admission to a particular department. The student must apply through the Advising Office of the College of Engineering. The requirements for Direct Departmental Admission (DDA) are:

1. Admission to the College of Engineering
2. High School Students: SAT scores of 500 Verbal and 600 Mathematics, a cumulative total of 1100; ACT scores of 26 Mathematics, a combined average score of 26.
3. Transfer Students: Successful completion of the following 17 hours of courses with a minimum grade point average of 3.30. (Grades in these courses must be either "A" or "B" - a student with a "C" or less grade in any one of the below listed courses is not eligible for DDA.)
   - MAC 3281 - Engineering Calculus I
   - MAC 3282 - Engineering Calculus II
   - MAC 3283 - Engineering Calculus III
   - PHY 3048 - General Physics I & Lab
   - PHY 3049 - General Physics II & Lab
   - CHM 2041 - Chemistry & CHM 2045L

And Either:
   - PHY 3049 - General Physics II & Lab
   - CHM 2041 - Chemistry & CHM 2045L

17 hrs.

Engineering Advising
Effective pursuit of engineering and engineering related studies requires careful attention to both the sequence and the type of courses taken. The engineering curriculum differs in key respects from the study plans of other majors - even in the freshman year. It is, therefore, important, and the College requires, that each student
plan his/her academic program and have it approved by a designated adviser in the College of Engineering.

New students must attend the University's Orientation program. They are assigned an engineering adviser during this program and receive advisement for their first semester at that time.

Students and advisees jointly work out a plan of study which meets both the student's career objectives and the College of Engineering's degree requirements. The advisers maintain the College of Engineering's student records.

While the College provides advising services to assist students with academic planning, the responsibility for seeing that all graduation requirements are met rests with the students. A copy of the Student Academic Support System (SASS) report may be had upon request.

*The College of Engineering requires all undergraduates to apply for graduation the semester prior to the anticipated graduation term. Necessary forms and instructions can be obtained in the Advising Office.*

### Departments & Programs

The supervision of the academic programs for the College is the function of the six administrative departments together with several coordinators. The departments are responsible for the professional programs in engineering and engineering science. Each department is responsible for programs, faculty, laboratories and students assigned to it.

#### Chemical Engineering

This department offers coursework and study in all areas fundamental to Chemical Engineering. Topics included are thermodynamics, fluid flow, heat transfer, mass transfer, separation processes, chemical reactors, instrumentation and process control, economics optimization, computer methods, computer aided design techniques, and process plant design. These courses, together with mathematics, physics, chemistry, other interdisciplinary engineering fundamentals, English, and liberal arts courses, provide the basis for long range professional progress. Because of the many professional areas available for employment to the chemical engineer, the students are also required to take a number of electives from areas such as biotechnology, materials, and environmental engineering. These electives are designed to broaden the experience and, therefore, the employment possiblities of our graduates. The department is responsible for the Bachelor of Science in Chemical Engineering (B.S.Ch.E.), the Master of Science in Chemical Engineering (M.S.Ch.E.), the Master of Engineering (M.E.), and the Doctor of Philosophy in Chemical Engineering (Ph.D.) degrees.

The Chemical Engineering Department also offers a sequence of courses in biotechnology and biomedical engineering. Biotechnology is largely involved in the utilization of living organisms to produce or transform a variety of products (e.g., pharmaceuticals, food, and fertilizers).

#### Biotechnology and Biomedical Engineering

A sequence of courses in the engineering aspects of biotechnology is currently available within the Chemical Engineering program. Topics include applied microbiology, fermentation, enzyme technology, and pharmaceutical engineering.

Biomedical Engineering is a highly interdisciplinary program, drawing from all engineering disciplines, biology, physical sciences, biomedical and clinical sciences. An undergraduate Certificate in Biomedical Engineering is available to students in all areas of engineering. This Certificate is designed with two main objectives: 1) to prepare interested students for admission into medical school, and 2) to prepare students for graduate work in either Biomedical Engineering, other engineering disciplines, or the Biomedical Sciences. Opportunities for students to gain research experience exist within the College of Engineering and the Health Sciences Center.

Please contact the Chemical Engineering Department for more information on these programs.

#### Civil Engineering and Mechanics

This department offers coursework and study pertinent to Civil Engineering, Engineering Mechanics, Materials Science, and Environmental Engineering. Topics included are structural analysis, design and optimization; metals, polymers, ceramics; solid and fluid mechanics, stress analysis, vibrations, continuum mechanics, finite element techniques, numerical methods; geotechnical engineering; transportation engineering; water resources engineering, environmental engineering, and coastal engineering. The department administers the Bachelor of Science in Civil Engineering (B.S.C.E.) and has a policy of mandatory academic advising of students for each school term. It also administers the Master of Science in Civil Engineering (M.S.C.E.) program, and a design oriented professional engineering Master of Civil Engineering (M.C.E.) program. These Master's programs can be completed with all evening coursework. As applicable, the department administers the M.S.C.E., M.S.E., M.E., M.S.E.S. and the Ph.D. in Civil Engineering programs. The Department of Civil Engineering and Mechanics has a policy of mandatory academic advising of students for each school term.

#### Computer Science and Engineering

This department offers coursework and study in all areas fundamental to Computer Science, Computer Engineering, and Information Systems. Topics include computer architecture and hardware design, software engineering, computer system organization, operating systems, algorithms and data structures, computer graphics, user interface, database systems, theory of computation and artificial intelligence.

The department administers the baccalaureate degree programs in Computer Science, Computer Engineering and Information Systems; the Master of Science degree programs in Computer Science and in Computer Engineering; and Ph.D. program in Computer Science and Engineering. Our research areas of faculty concentration are 1) computer architecture and VLSI design/ testing, 2) artificial intelligence and expert systems, 3) software engineering, and 4) graphics/image processing/computer vision.

The department offers computer facilities that include several microprocessors and design laboratories for hardware-oriented studies, several personal computer laboratories for general use in programming assignments, and a substantial number of graphics-oriented personal computers. The Department also runs a research-oriented network consisting of Intel Hypercube, TI Explorer, a number of AT&T 3B2 machines, a number of SUN workstations, and special purpose image and graphics processors. In addition, the Department has access to a large IBM mainframe facility run by the University Computing Center.

#### Electrical Engineering

This department offers study in all areas fundamental to Electrical Engineering and the electrical sciences: circuit analysis and design, electronics, communications, electromagnetic, controls, solid state, systems analysis, digital circuit design, etc. Basic concepts are augmented with well-equipped laboratories in networks, electronics, digital systems, electromechanics, microwave techniques and communications. In addition, a general purpose computer facility, a microprocessor laboratory and a microelectronics fabrication laboratory are available to undergraduate and graduate students. The department administers the Electrical Engineering option (program) of the Bachelor of Science in Engineering (B.S.E.E.) degree program, the Bachelor of Science in Electrical Engineering (B.S.E.E.E.) degree program, as well as the Master of Science in Electrical Engineering (M.S.E.E.) program which is also available to evening and off-campus students. As applicable, the department administers the M.S.E.E., M.E., M.S.E.S. and the Ph.D. in Electrical Engineering programs.

#### Industrial and Management Systems Engineering

This department offers study pertinent to the design, evaluation and operation of a variety of industrial systems, ranging from the analysis of public systems to the operation of manufacturing plants. Topics include production planning and control, production and plant design, applied statistics, operations research, human factors and productivity, manufacturing, and automation. The department has excellent laboratory facilities which support class projects and research in microcomputer applications, computer-aided manufacturing, automation, and applications of robotics. The department
administers the Bachelor of Science in Industrial Engineering (B.S.I.E.) degree program, as well as the Master of Science in Industrial Engineering (M.S.I.E.), and Ph.D. in Industrial Engineering. Evening and off-campus programs are available through the Master of Science in Engineering Management (M.S.E.M.) program. The department also administers the Industrial option in the M.S.E., M.E., and M.S.E.S. programs, as well as the manufacturing option in the M.S.E. program.

Mechanical Engineering
The department offers courses leading to the degrees of Bachelor of Science in Mechanical Engineering (B.S.M.E.), Bachelor of Science in Engineering (B.S.E.), Master of Science in Mechanical Engineering (M.S.M.E.), Master of Science in Engineering (M.S.E.), and Doctor of Philosophy (Ph.D.). Coursework includes basic science and mathematics, thermal and fluid sciences, material science, solid mechanics, dynamics, machine design, vibrations, instrumentation and automatic control.

Graduates have found employment in research, design, production, marketing, service, installation (contracting), maintenance, and operation in such industries as mining, petroleum, paper, food, power, manufacturing, air-conditioning, defense systems, aerospace, data processing and communications.

Laboratories are available for basic instrumentation, thermal and fluid sciences, solid mechanics, data acquisition and control, CAD/CAE, vibrations, robotics and aerodynamics. A minimum GPA of 3.0 is required in all departmental courses for the awarding of a B.S.M.E. degree and only one "D" grade in departmental courses is allowed.

Engineering Core
Both the four-year and five-year curricula of the College of Engineering Bachelor of Science programs are founded on a common core of coursework which is required of all students. This coursework is a base for each student to build a thorough foundation of knowledge upon which specialization studies and a professional career can be based. Emphasis is placed on five key elements: development of communication skills, familiarity with the social sciences and humanities, a solid base in science and mathematics, a strong foundation in basic engineering sciences and applications and design experience in a field of specialization.

Each degree-granting department has developed its own list of courses to provide key elements for the degree offered. While the specific courses will vary slightly from one department to another, the hours in each category will be approximately as follows:

- Non-technical Courses: 30 Sem. Hrs.
  - Social Sciences, Humanities, Communications: 35 Sem. Hrs.
  - Mathematics, Chemistry and Physics: 30 Sem. Hrs.
- Department Specialization: 136 Sem. Hrs.

Special requirements exist for Chemical Engineering. Students selecting this field should make sure they familiarize themselves with these. Detailed information can be obtained from the responsible department or the College's Advising Office.

1. Non-Technical Requirements
Prospective Engineering majors must take six hours of Freshman English (ENC 1101, 1102) in their first two semesters. Additional coursework in this category is required as specified in the individual curricula printed on pages which follow.

Students are advised to check the College of Engineering's list of "Approved Social Sciences and Humanities Courses" before enrolling. If a student desires credit for a course not on this list, any appropriate subject may be taken, provided the student can demonstrate a knowledge of comparable content. Suitable coursework can be taken at the University's General Distribution Requirements.

In selecting courses to meet the minimum requirements in the Social Sciences and Humanities each student should choose his courses so as to satisfy 6A-10.30 (the "Gordon Rule"). It is required by ABET that at least two courses (6 hours) must be taken at the University's General Distribution Requirements. Students transferring from other colleges without having met ABET depth and breadth requirements must take additional Social Sciences/Humanities courses at USF to meet this requirement.

It is desirable that at least 24 hours of this coursework be taken in the first two years. Students are responsible for checking with their advisers to be sure that the specific courses they are taking meet the requirements of the Bachelor of Science in Engineering degree program. Students who transfer from a State of Florida community college with an Associate of Arts degree who have met that college's General Education Requirement will normally find that their General Education coursework satisfies the major portion - but not all - of the Social Sciences and Humanities core requirement.

Credit by examination can be obtained for some of this coursework. CLEP General Examination credit, acceptable to the University, is accepted for the areas of English Composition, Humanities and Social Sciences. Credit for CLEP Subject Examinations and CEEB Advanced Placement Tests can be accepted when the subject covered is recognized to be equivalent to USF courses on the College of Engineering "Approved Social Sciences and Humanities Courses" list. Questions in this area should be directed to the Coordinator of Engineering Advising in the College's Advising Office.

2. Mathematics and Science Core Requirements
The student with a satisfactory high school preparation must take 35 credit hours of mathematics and science coursework. (Some credit towards this core requirement can be obtained by taking applicable CEEB Advanced Placement Tests or CLEP Subject Examinations.)

In mathematics this coursework consists of a Calculus for Engineers sequence or a calculus sequence of equivalent level), Differential Equations, and additional hours of designated courses supportive of the student's selective field of specialization, as specified by the department. In the science coursework students must take the Physics with Calculus sequence and the General Chemistry sequence.

Students whose high school preparation is insufficient to enter the Calculus for Engineers are required to take supplementary algebra and trigonometry prior to being considered for acceptance into the College. All students must take the math placement test.

3. Engineering Core Requirements
The prospective engineering major must take a minimum of 35 credit hours of engineering core (foundation) coursework drawn from the major disciplines. This coursework is designed to equip the student with a sound technical foundation for later, more advanced specialized coursework and the eventual formation of professional judgment. This coursework includes introductory studies in such areas as engineering analysis and computation, statistics, electrical engineering principles, thermodynamics, statics, dynamics, fluids, and properties of materials.

All but 6 credit hours of the engineering core are common to all areas of specialization (option) of the Bachelor of Science in Engineering and the Bachelor of Science in a Designated Engineering Field degree programs. The remaining 6 credit hours of coursework must be chosen with the concurrence of the departmental adviser to fit the field selected by the student. Details on this selection are available in the departmental office of the field selected, or in the College's Advising Office.

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coursework—minimum of 101 credit hours—which are described above, and an additional 35 credit hours of coursework in a designated field of specialization. Details covering specific fields are available on request from the responsible department, or from the College’s Advising Office.

Programs are offered in the following disciplines of Engineering:

1. General
   All departments of the College of Engineering offer the general option of the Bachelor of Science in Engineering degree. This program consists of the basic engineering core of approximately 100 semester hours plus additional credits to produce a total of 136, in a designated field of specialization. This program is tailored to meet needs of students who have very specific goals and wish to deviate from a prescribed disciplinary program. Since the program is tailored for individual students a curriculum cannot be published and, therefore, it cannot be accredited. Because of this it is not recommended for most students. Nevertheless, it can be a valuable program for students with special needs.

   Pre-medical students may elect this option. It accommodates up to 32 hrs. of special pre-med coursework (Biology, Organic Chemistry, etc.) selected by student and adviser to meet normal admissions requirements of medical schools.

   Pre-law students find this option permits a strong technical and legal undergraduate academic preparation.

2. Chemical Engineering
   Students pursuing the Bachelor of Science in Chemical Engineering take coursework in advanced chemistry, thermodynamics, fluids, heat, and mass transfer, separation processes, reacting systems, instrumentation, and control. Students must also satisfactorily complete a design and/or case study as part of their program. Students in the biotechnology/biomedical option are also required to take additional courses in general biology, microbiology, and biochemistry. Special characteristics of the Chemical Engineering curriculum make it imperative that the students retain close contact with their adviser.

   Students completing this program normally initiate their careers in process/manufacturing industries. Chemical engineers are found in administrative, technical, and research positions in these industries. Main products of these industries are petrochemicals, polymers, fibers, natural and synthetic fuels, electronic materials, fertilizers, pharmaceuticals, etc. Modern societal problems and technology have required the Chemical Engineering "know-how" to be applied in the biotechnology/biomedical and environmental areas. These fields depend on the chemical engineer, among others, for solutions. Chemical Engineering students are expected to have access to an IBM compatible personal computer during their last two years of study. Those who do not own one will be severely disadvantaged.

   The schedule which follows indicates how a serious student who can devote full time to coursework can satisfy requirements in four academic years. Students without a solid foundation and those who cannot devote full time to academics should plan a slower pace.

Bachelor's Curriculum - Chemical Engineering

<table>
<thead>
<tr>
<th>Semester I</th>
<th>Semester II</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 1101</td>
<td>ENC 1102</td>
</tr>
<tr>
<td>MAC 3281</td>
<td>MAC 3282</td>
</tr>
<tr>
<td>CHM 2041</td>
<td>CHM 2046</td>
</tr>
<tr>
<td>EGN 1002</td>
<td>CHM 2046L</td>
</tr>
<tr>
<td>Social &amp; Behav. Science Elective</td>
<td>Engineering Orientation</td>
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<tr>
<td>Humanities Elective</td>
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<tr>
<th>Suggested Summer Term</th>
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<tbody>
<tr>
<td>MAC 3283 Engineering Calculus III</td>
</tr>
<tr>
<td>MAP 4302 Differential Equations</td>
</tr>
<tr>
<td>CHM 2046L Gen. Chem II Lab</td>
</tr>
<tr>
<td>PHY 3049 Gen. Physics II</td>
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<td>PHY 3049L Gen. Physics Lab II</td>
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<table>
<thead>
<tr>
<th>Semester III</th>
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<tbody>
<tr>
<td>EGN 3311 Statics</td>
</tr>
<tr>
<td>EGN 3373 Electrical Systems I</td>
</tr>
<tr>
<td>EGN 2210 FORTRAN</td>
</tr>
<tr>
<td>EGN 3343 Thermodynamics I</td>
</tr>
<tr>
<td>EGN 3443 Statistics</td>
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<td>Social Science Elective</td>
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<table>
<thead>
<tr>
<th>Semester IV</th>
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<tbody>
<tr>
<td>EGN 4450 Intro. to Linear Systems</td>
</tr>
<tr>
<td>EGN 3365 Materials</td>
</tr>
<tr>
<td>EML 3303 Mec Eng Lab I</td>
</tr>
<tr>
<td>ECH 3702 Instrument Systems I</td>
</tr>
<tr>
<td>ECH 3023 Intro. to Process Eng</td>
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<tr>
<th>Semester V</th>
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<tbody>
<tr>
<td>ECH 3264 Transport Processes I</td>
</tr>
<tr>
<td>ECH 3264 Transport Processes I Lab</td>
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<tr>
<td>ECH 4123 Phase &amp; Chemical Equilibria</td>
</tr>
<tr>
<td>CHM 3210 Organic Chemistry I</td>
</tr>
<tr>
<td>CHM 3210L Organic Chemistry I Lab</td>
</tr>
<tr>
<td>CHM 4412 Physical Chemistry III</td>
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<table>
<thead>
<tr>
<th>Semester VI</th>
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<tr>
<td>ECH 4265 Transport Processes II</td>
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<tr>
<td>ECH 4265 Transport Processes II Lab</td>
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<tr>
<td>CHM 3211 Organic Chemistry II</td>
</tr>
<tr>
<td>ECH 4605C Process Eco &amp; Opt</td>
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<tr>
<td>Technical Elective</td>
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<td>Liberal Arts Elective</td>
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<table>
<thead>
<tr>
<th>Semester VII</th>
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<tbody>
<tr>
<td>EMC 4314 Automatic Controls I</td>
</tr>
<tr>
<td>ECH 4415 Reacting Systems</td>
</tr>
<tr>
<td>ECH 4415 Reacting Systems Lab I</td>
</tr>
<tr>
<td>EMC 4522L Chem. &amp; Mech. Lab II</td>
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<tr>
<td>Technical Elective</td>
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<tr>
<td>Chemistry Elective</td>
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<table>
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<tr>
<th>Semester VIII</th>
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</thead>
<tbody>
<tr>
<td>ECH 4615 Plant Design and Economics</td>
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<tr>
<td>Technical Electives</td>
</tr>
<tr>
<td>Liberal Arts Elective</td>
</tr>
</tbody>
</table>

3. Civil Engineering

Students pursuing the Bachelor of Science in Civil Engineering program take designated traditional civil engineering and engineering mechanics coursework in solid mechanics, stress analysis, structures, materials, hydraulics, geotechnical, transportation, and engineering analysis. This coursework is supplemented by courses in one of the following areas of concentration, plus electives.

- Environmental/Water Resources - courses in water treatment, waste water treatment, air pollution control and water resources.
- Geotechnical/Transportation - courses in soil mechanics, foundations, transportation, and surveying.
- Materials - courses in engineering materials, polymers, corrosion control and materials processes.
### Bachelor's Curricula - Civil Engineering Option

<table>
<thead>
<tr>
<th>Semester I</th>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 1101</td>
<td>Freshman English I</td>
<td>3</td>
</tr>
<tr>
<td>MAC 3281</td>
<td>Engr. Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>CHM 2041</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>EGN 1002</td>
<td>Engr. Orientation</td>
<td>0</td>
</tr>
<tr>
<td>EGS 1113</td>
<td>Intro. Design Graphics</td>
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</tr>
<tr>
<td>Approved Social Science Elective</td>
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<tr>
<td><strong>Total</strong></td>
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<table>
<thead>
<tr>
<th>Semester II</th>
<th>COURSES</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>ENC 1102</td>
<td>Freshman English II</td>
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</tr>
<tr>
<td>MAC 3282</td>
<td>Engr. Calculus II</td>
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<tr>
<td>CHM 2046</td>
<td>General Chemistry II</td>
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<tr>
<td>CHM 2045L</td>
<td>Gen. Chemistry I Lab</td>
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<tr>
<td>PHY 3048</td>
<td>General Physics I</td>
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<tr>
<td>PHY 3048L</td>
<td>Gen. Physics I Lab</td>
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<tr>
<td>Approved Social Science Elective</td>
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<tr>
<td><strong>Total</strong></td>
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<table>
<thead>
<tr>
<th>Semester III</th>
<th>COURSES</th>
<th>HOURS</th>
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</thead>
<tbody>
<tr>
<td>PHY 3049</td>
<td>General Physics II</td>
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</tr>
<tr>
<td>PHY 3049L</td>
<td>Gen. Physics II Lab</td>
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</tr>
<tr>
<td>MAC 3283</td>
<td>Engr. Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>EGN 2210</td>
<td>FORTRAN for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3311</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>Approved Humanities Elective</td>
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<td></td>
</tr>
<tr>
<td>Approved Social Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
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<table>
<thead>
<tr>
<th>Semester IV</th>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAP 4302</td>
<td>Differ. Equations</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3365L</td>
<td>Materials Engr. I</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3373</td>
<td>Intro to Elec. Sys. I</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3343</td>
<td>Thermodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3443</td>
<td>Engr. Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>Approved Humanities/Social Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
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<table>
<thead>
<tr>
<th>Semester V</th>
<th>COURSES</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>EGN 3353C</td>
<td>Basic Fluid Mech.</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3321</td>
<td>Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>EGN 3331</td>
<td>Mechanics of Materials</td>
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</tr>
<tr>
<td>EGN 3331L</td>
<td>Mech. of Materials Lab</td>
<td>1</td>
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<tr>
<td>ENV 3001</td>
<td>Environmental Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

### Civil Engineering Concentration Requirements
(A student must complete a minimum of 9 hours, with at least 2 courses from one group.)

<table>
<thead>
<tr>
<th>Water Resources</th>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV 4502</td>
<td>Environmental Unit Operations</td>
<td>3</td>
</tr>
<tr>
<td>ENV 4101</td>
<td>Air Pollution Control</td>
<td>3</td>
</tr>
<tr>
<td>CWR 4103</td>
<td>Water Resources Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Geotechnical/Transportation</td>
<td>COURSES</td>
<td>HOURS</td>
</tr>
<tr>
<td>CEG 4012</td>
<td>Soil Mechanics II</td>
<td>3</td>
</tr>
<tr>
<td>TTE 4005</td>
<td>Transportation Engineering II</td>
<td>3</td>
</tr>
<tr>
<td>SUR 3140C</td>
<td>Engineering Land Surveying</td>
<td>3</td>
</tr>
<tr>
<td>Materials</td>
<td>COURSES</td>
<td>HOURS</td>
</tr>
<tr>
<td>EGN 4366</td>
<td>Materials Engineering-II</td>
<td>3</td>
</tr>
<tr>
<td>EMA 4324</td>
<td>Corrosion of Engineering Materials</td>
<td>3</td>
</tr>
<tr>
<td>EMA 4703</td>
<td>Failure Analysis &amp; Prevention</td>
<td>3</td>
</tr>
<tr>
<td>Structural</td>
<td>COURSES</td>
<td>HOURS</td>
</tr>
<tr>
<td>CES 4141</td>
<td>Matrix Structural Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CES 4820</td>
<td>Timber &amp; Masonry Design</td>
<td>3</td>
</tr>
<tr>
<td>CES 4561</td>
<td>Computer Aided Structural Design</td>
<td>3</td>
</tr>
</tbody>
</table>

### Civil Engineering Design Requirements
(A student must complete a minimum of 4 hours with at least 1 course from the same area of concentration selected for 2 concentration requirements.)

<table>
<thead>
<tr>
<th>Environmental/Water Resources</th>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWR 4810</td>
<td>Hydraulic Design</td>
<td>2</td>
</tr>
<tr>
<td>ENV 4432</td>
<td>Water Systems Design</td>
<td>2</td>
</tr>
<tr>
<td>CGN 4914</td>
<td>Senior Project</td>
<td>2</td>
</tr>
<tr>
<td>Geotechnical/Transportation</td>
<td>COURSES</td>
<td>HOURS</td>
</tr>
<tr>
<td>CEG 4801</td>
<td>Geotechnical Design</td>
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</tr>
<tr>
<td>TTE 4821</td>
<td>Transportation Systems Design</td>
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<td>Senior Project</td>
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<td>Course Title</td>
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<tr>
<td>CGN 4851</td>
<td>Cement and Concrete Design</td>
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<tr>
<td>EMA 4704</td>
<td>Selection and Application of Materials</td>
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<tr>
<td>CGN 4914</td>
<td>Senior Project</td>
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<tr>
<td>CES 4618</td>
<td>Structural Design-Steel</td>
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<tr>
<td>CES 4704</td>
<td>Structural Design-Concrete</td>
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<td>CGN 4914</td>
<td>Senior Project</td>
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<tr>
<td>CES 4702</td>
<td>Concepts of Concrete Design</td>
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<tr>
<td>ENC 3213</td>
<td>Professional Writing</td>
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<tr>
<td>ENC 3210</td>
<td>Technical Writing</td>
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</tr>
<tr>
<td>ENV 4552</td>
<td>Unit Ops. &amp; Processes Lab</td>
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<tr>
<td>ENV 4503</td>
<td>Env. Unit Processes</td>
<td>2</td>
</tr>
<tr>
<td>ENV 4432</td>
<td>Water Systems Design</td>
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<td></td>
<td>Semester VIII</td>
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<td></td>
<td>Approved Liberal Arts Exit Elective</td>
<td>3</td>
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<tr>
<td>CGN 4122C</td>
<td>Engr. Contracts Spec. &amp; Ethics</td>
<td>3</td>
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<tr>
<td>ENV 4101</td>
<td>Air Pollution Control</td>
<td>3</td>
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<td>ENV 4531</td>
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<td>Semester VIII</td>
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<td></td>
<td>4. Computer Science and Engineering</td>
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<td>Two undergraduate programs are offered</td>
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<td>within Computer Science and Engineering.</td>
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<td>They are the Computer Engineering</td>
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<td>program (leading to a Bachelor of Science</td>
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<td>in Computer Engineering), and the</td>
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<td>Computer Science program (leading to</td>
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<td>a Bachelor of Science in Computer Science)</td>
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<td>The Computer Engineering program</td>
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<td>emphasizes the design and utilization</td>
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<td>of computers and has a core of</td>
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<td>engineering and basic</td>
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<td>science courses like those of other</td>
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<td>engineering programs outside the</td>
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<td>Department of Computer Science and</td>
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<td>Engineering. The Computer Science</td>
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<td>program deals with the fundamental</td>
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<td>and formal aspects of computation.</td>
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<td>Graduates from these programs</td>
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<td>follow fruitful careers in either</td>
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<td>scientific or business application of</td>
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<td>computers, as well as in the</td>
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<td>design of computer systems. They are</td>
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<td>often involved in the systems</td>
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<td>level definition of information</td>
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<td>processing complexes for both</td>
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<td>manufacturers of computers and for users.</td>
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<td>A wide and expanding variety of</td>
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<td>design and applications opportunities</td>
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<td>characterize this field. The rapid</td>
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<td>growth and continual change within this</td>
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<td>to acquire a broad foundation in applied</td>
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<td>mathematics and the physical sciences,</td>
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<td>and also to develop communications</td>
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<td>abilities and clear perceptions in the</td>
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<td>Research and development opportunities as</td>
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<td>often following graduate education,</td>
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<td>intelligence, software engineering, digital</td>
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<td>data communications, robotics, fault-</td>
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<td>tolerant computing and testing, computer</td>
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<td>graphics, image processing and computer</td>
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<td>vision, and simulation.</td>
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<td>Graduates from these programs</td>
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<td>follow the guidelines as serious,</td>
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<td>degree requirements in four academic</td>
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<td>years. Students without a solid</td>
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<td>foundation and those who cannot devote</td>
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<td>full time to academic programs</td>
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<td>should plan on a slower pace.</td>
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<td>ENC 1101 Freshman English</td>
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<td>ENC 1102 Freshman English</td>
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MAC 3283  Engr. Calculus III  3  
Social Science/Humanities Elective  3  

**Semester IV**

EGN 3373  Elect. Sys. I  3  
COT 3100  Intro. to Discrete Structures  3  
ENC 3210  Tech. Writing  3  
EGN 3613  Engr. Economy  3  
MAP 4302  Diff. Equations  3  

Science Elective  3  
STA 4442  Intro. to Probability  3  
MAS 3103  Linear Algebra  3  
COP 3002  Intro to Computer Science  3  
COP 3000L Intro to Computer Science Lab  1  
Social Science/Humanities Elective  16  
EEL 4851C Data Structures  3  
EEL 4705 Logic Design  3  
EEL 4705L Logic Design Lab  3  
COP 3010 Programming Concepts  3  
COP 3510 Introduction to Computer Sci.  3  
Social Science/Humanities Elective  3  

**Semester V**

CDA 4100 Computer Organization and Architecture  3  
COP 4400 Computer Systems  3  
COT 4210 Intro. to Automata Theory & Formal Languages  3  
Free Elective  3  
Computer Science Elective  3  

**Semester VI**

EEL 4744 Microprocessor Principles & Applications  3  
EEL 4743L Microprocessor Lab  1  
COP 4600 Intro. to Sys. Prog.  3  
COT 4400 Analysis of Algorithms  3  
Computer Science Elective  3  
Free Elective  3  

**Semester VII**

EEL 4748 Microprocessor Based System Design and Application  3  
CDA 4203 Comp. Sys. Design  3  
CIS 4910 Comp. Engr. Project  2  
Computer Engineering Elective  3  
CIS 4250 Computer Ethics  3  

**Bachelor of Science in Information Systems Curriculum**

**Semester I**

EGN 1002  Engr. Orientation  0  
MAC 3281  Engr. Calculus I  3  
CHM 2041 General Chemistry I  3  
CHM 2045L General Chemistry I Lab  1  
ENC 1101 Freshman English I  3  
Social Science/Humanities Elective  16  

**Semester II**

MAC 3282  Engr. Calculus II  3  
PHY 3048 General Physics I  3  
PHY 3048L General Physics I Lab  1  
ENC 1102 Freshman English II  3  
CHM 2046 General Chemistry II  3  
Social Science/Humanities Elective  16  

**Semester III**

PHY 3049 General Physics II  3  
PHY 3049L General Physics II Lab  1  
MAC 3283 Engr Calculus III  3  
Social Science/Humanities Elective  10  

**Semester IV**

EGN 3373 Elect. Sys. I  3  
COT 3100 Intro. to Discrete Structures  3  
MAP 4302 Diff. Equations  3  
EGN 3343 Thermo I  3  
EGN 3311 Statics  3  
ENC 3210 Tech. Writing  3  
EEL 4851C Data Structures  3  
EEL 4705 Logic Design  3  
EEL 4705L Logic Design Lab  3  
EEL 4305 Electronics II  3  

**Semester V**

EGN 3365L Materials Engr. I  3  
EEL 4851C Data Structures  3  
EGN 3613 Engr. Economy I  3  
EEL 4705 Logic Design  3  
EEL 4705L Logic Design Lab  3  
EEL 4305 Electronics II  3  

**Semester VI**

CDA 4100 Computer Organization & Architecture  3  
COP 4400 Computer Systems  3  
COT 4210 Intro. to Automata Theory & Formal Languages  3  
Social Science/Humanities Elective  3  
Computer Engineering Elective  3  

**Semester VII**

EEL 4744 Microprocessor Principles and Applications  3  
EEL 4743L Microprocessor Lab  1  
COP 4600 Intro. to Sys. Prog.  3  
Social Science/Humanities Elective  3  
Computer Engineering Elective  3  

**Semester VIII**

EEL 4748 Microprocessor Based System Design and Application  3  
CDA 4203 Comp. Sys. Design  3  
CIS 4910 Comp. Engr. Project  2  
Computer Engineering Elective  3  
CIS 4250 Computer Ethics  3  

**Bachelor of Science in Information Systems Curriculum**

**Semester I**

ENC 1101 Freshman English I  3  
MAC 3233 or 3281 Calculus I  3  
ACG 2001 Elem. Accounting I  3  
Social Science/Humanities Elective  3  

**Semester II**

ENC 1102 Freshman English II  3  
MAC 3234 or 3282 Calculus II  3  

### Semester I
- **Electrical Engineering**
  - PHY 3053 or 3048: Physics I
  - PHY 3053L or 3048L: Physics I Lab
  - ACG 2011: Elem. Accounting II
  - Humanities/Social Science Elective

### Semester II
- **Electrical Engineering**
  - PHY 3054 or 3049: General Physics II
  - PHY 3049L or 3054L: Physics II Lab
  - EGN 2210: FORTRAN for Engrs.
  - Science Elective

### Semester III (Summer)
- **Electrical Engineering**
  - PHY 3054 or 3049: General Physics II
  - PHY 3049L or 3054L: Physics II Lab
  - EGN 2210: FORTRAN for Engrs.
  - Science Elective

### Semester IV
- **Electrical Engineering**
  - COP 3110: Intro. to Computer Science
  - COP 3000L: Intro. to Computer Science Lab
  - MAS 3103: Linear Algebra
  - ECO 2023: Economic Principles (Microeconomics)
  - STA 3023: Intro. to Statistics
  - Humanities/Social Science Elective

### Semester V
- **Electrical Engineering**
  - COP 3002: Intro. to Computer Science
  - COP 3000L: Intro. to Computer Science Lab
  - MAS 3103: Linear Algebra
  - ECO 2013: Economic Principles (Macroeconomics)
  - Humanities/Social Science Elective

### Semester VI
- **Electrical Engineering**
  - EEL 4851C: Data Structures
  - EEL 4703: Logic Design
  - MAN 3025: Principles of Mgmt
  - CEN 4020: Software Engr.
  - COP 3510: Programming Concepts

### Semester VII
- **Electrical Engineering**
  - COP 4400: Computer Systems
  - EEL 4852C: Data Base Systems
  - ENC 3210: Technical Writing
  - XXX 0000: Software Engr. II
  - Business Elective

### Semester VIII
- **Electrical Engineering**
  - COP 4600: Systems Programming
  - ESI 4312: Operations Resch. I
  - EEL 4781C: Dist. Proc. & Computer Networks
  - XXX 0000: Fourth Generation Lang
  - XXX 0000: SW Tools & Metrics
  - Humanities/Social Science Elective

### Semester IX
- **Electrical Engineering**
  - CIS 4910: Computer Science Project
  - XXX 0000: Computer Simulation
  - CIS 4250: Computer Ethics
  - Business Elective
  - Information Systems Elective

### Semester X
- **Electrical Engineering**
  - The electrical graduate may apply his/her knowledge to such diverse areas as television, communications, remote guidance, sensing (of people, vehicles, weather, crops, etc.), automation, computer and information systems, electric power generation and transmission, electrically propelled transportation, etc. The graduate may do this by performing needed engineering functions related to research and development (often requires an advanced degree), design, production, operation, sales, or management of these products/services.

The schedule which follows indicates how a serious, well-prepared student who can devote full time to coursework can satisfy degree requirements in four academic years. Students without a solid foundation and those who cannot devote full time to academics should plan on a slower pace. A minimum departmental GPA of 2.0 is required for graduation.

### Bachelor's Curriculum - Electrical Engineering

#### Semester I
- ENC 1101: Freshman English I
- CHM 2041: Gen. Chem. I
- CHM 2045L: Gen. Chem. Lab
- MAC 3281: Engr. Calculus I
- EGN 1002: Engr. Orientation
- Approved Non-technical Elective
- Approved Non-technical Elective

#### Semester II
- ENC 1102: Freshman English II
- CHM 2046: Gen. Chem. II
- PHY 3048: Gen. Phy. I
- PHY 3048L: Gen. Phy. Lab
- MAC 3282: Engr. Calc. II
- EGN 2210: FORTRAN for Engrs.
- Approved Non-technical Elective

#### Semester III
- PHY 3049: Gen. Phy. II
- PHY 3049L: Gen. Phy. II Lab
- MAC 3283: Eng. Calculus III
- Approved Non-technical Elective
- EGN 3311: Statics
- EGN 3613: Egr. Economy I

#### Semester IV
- MAP 4302: Differ. Equations
- EGN 3311: Dynamics
- EGN 3373: Intro. to Elec. Sys. I
- EGN 3443: Engr. Statistics I
- PHY 3101: Modern Physics
- EGN 3343: Thermodynamics I

#### Semester V
- EEL 3302: Electronics I
- EGN 4450: Intro. to Linear Systems
- EGN 3375: Intro. to Elec. Systems II
- EEL 3100: Network Analysis & Design
- EEL 3410: Fields & Waves I
- Approved Non-technical Elective

#### Semester VI
- EEL 4102: Linear Systems Analysis
- EEL 4351C: Semiconductors Devices
- EEL 4411: Fields & Waves II
- ELR 3301L: Lab I
- EGN 3365L: Materials Engineering I
- Upper-level Comm. Course
6. Industrial Engineering

Students pursuing the Bachelor of Science in Industrial Engineering degree program take designated, specialized coursework in industrial processes, work analysis, production control, facilities design, operations research, human factors, computer simulation, quality control, and robotics and automation. This coursework is supplemented by engineering electives and comprehensive industrial engineering design projects.

Students completing this program are prepared for graduate study or for careers in a broad range of industries, business, and public service areas. The strength of industrial engineering lies, in part, in its breadth and the applicability of its common body of knowledge in a wide variety of enterprises. Students may be involved in traditional areas of manufacturing and production, or state-of-the-art functions in automation and robotics. The same engineering principles are also applied to business organizations, service delivery systems, and governmental administration.

The current departmental policy is to allow only one 'D' in each of the following categories: non-technical core, mathematics-science core, and engineering core. No 'D' grades are allowed for any of the upper division Industrial Engineering courses (prefix EIN and ESI).

The schedule which follows indicates how a serious, well-prepared student who can devote full time to coursework can satisfy degree requirements in four academic years. Students without a solid foundation and those who cannot devote full time to academics should plan on a slower pace.

Bachelor's Curriculum

Industrial and Management Systems Engineering

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<tr>
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<tbody>
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<td>EIN 1101</td>
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<tr>
<td>MAC 3281</td>
<td>Engr. Calculus I</td>
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<tr>
<td>CHM 2041</td>
<td>General Chemistry I</td>
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<tr>
<td>EGN 1002</td>
<td>Engr. Orientation</td>
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<td>EGS 1113</td>
<td>Intro. to Design Graphics</td>
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<td>Humanities</td>
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<td>PHY 3048</td>
<td>General Physics I</td>
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<td>PHY 3048L</td>
<td>Gen. Physics I Lab</td>
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<td>EGN 2210</td>
<td>FORTRAN for Engineers</td>
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<td>EIN 4411</td>
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<td>ACG 3074</td>
<td>Managerial Acct. for Engineers</td>
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7. Mechanical Engineering

Students pursuing the Bachelor of Science in Mechanical Engineering program take coursework in thermodynamics and heat transfer; instrumentation and measurements, energy conversion systems, solid and fluid mechanics, dynamics, machine analysis and design, mechanical design, controls, and fluid machinery. This is supplemented by elective coursework in such areas as power plant analysis, refrigeration and air conditioning, mechanical design, advanced mechanics, heat transfer, robotics, propulsion, vibrations, computer-aided design, manufacturing, composite materials, and aerodynamics.

Students completing this option normally enter careers in a wide range of industries which either produce mechanical products or rely on machines, mechanical devices and systems to produce electricity, petroleum products, foods, textiles, building materials, etc. Mechanical Engineering graduates may follow careers in such fields as transportation, power generation, manufacturing, instrumentation, automatic control, machine design, construction, refrigeration, heating and air conditioning, aerospace, defense and all the process industries (foods, textiles, petrochemicals, pharmaceuticals, etc.). There are career opportunities in this wide range of industries because mechanical equipment is required in all aspects of industrial production.
Bachelor's Curriculum
Mechanical Engineering

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<tbody>
<tr>
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<td>EML 3254</td>
<td>Kinematics and Dynamics of Machinery</td>
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Approved Technical Elective
Approved Technical Elective

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College Regulations

1. Humanities and Social Science Requirements

While the Engineering undergraduate student is expected to complete certain requirements during the first two years of study which are directed toward the humanities and social sciences, and which are fulfilled by the completion of the Distribution requirements of the University (or General Education requirements at other institutions), the College of Engineering expects more of its prospective engineering graduates than this minimum. The engineer must not only be a technically competent individual, but must also be a person who can understand, adjust and contribute to the social environment.

Students who transfer from a State of Florida community college with an Associate of Arts degree and who have met that college's General Education Requirement will normally find that their General Education coursework satisfies the major portion - but not all - of the Social Science and Humanities Core Requirements.

2. English Requirement

Students who have been admitted to the College of Engineering may be required to take an examination in order to evaluate their preparedness in the use and understanding of the English language. The examination will be administered by the faculty of the University's English program.

Students evidencing an English deficiency will be required to initiate the necessary corrective programs, with the assistance of their advisers. It is recognized that such deficiencies can exist even though a student has met the University's minimum English requirements. Correction of any deficiency must commence the term after a student has been notified and must be completed prior to recommendation of the student for graduation by the faculty of the College.

See Continuation and Graduation Requirements below for minimum grade requirements.

3. Mathematics Requirement

Students who are pursuing an engineering program are expected to acquire a facility for the rapid and accurate solution of problems requiring the use of mathematics. This requirement includes the ability to translate physical situations into mathematical models. Students evidencing a lack of manipulative ability or of the ability to apply mathematics will be required to take remedial coursework in engineering analysis and problem solving that is over and above their regular degree requirements. Faculty of the College who encounter students who are deficient in their mathematical ability will refer such cases to the Advising Office.

4. Continuation and Graduation Requirements

The curricula for the programs offered by various departments of the College of Engineering may be divided into four categories: a) General Education or Non-Technical Requirements; b) Basic Science Requirements (i.e., Math, Chemistry and Physics); c) Engineering Science Requirements; d) Specialization Requirements. All undergraduate students in the College of Engineering are expected to maintain the minimum grade-point average (GPA) for each category specified by the department responsible for the program pursued. In no case will the minimum GPA for a category be less than 2.0. Note that key courses, including but not limited to Freshman English, Calculus, Physics, Engineering, and Science courses in the student's areas of specialization, must be passed with a grade of "C" or better. The awarding of a baccalaureate degree also requires a minimum average of 2.0 or "C" for all engineering coursework of 1000-level or above attempted while registered in the College. Some programs may have higher requirements for certain categories. It is the student's responsibility to make sure she/he meets all departmental requirements. In addition to the completion of the coursework and/or project requirements of the respective program of the College, students must be recommended for their degrees by the faculty of the College.
Students who do not maintain the required minimums of the program pursued in each category are ineligible for further registration in the College unless individually designed continuation programs are recommended by the student's academic adviser and approved by the department chairperson and the Engineering Associate Dean for Academic Affairs. All students who are academically dismissed from the University will be denied readmission to the College of Engineering unless they meet admission requirements in effect at the time readmission is sought and are recommended for readmission by the department and the Associate Dean for Academic Affairs.

Students who register for a course three times without receiving a grade "C" or better (i.e., receive grades of W, D, or F) will be denied further enrollment in the College of Engineering unless written permission is obtained from the department chairperson and the College Associate Dean for Academic Affairs.

Students pursuing College of Engineering degree programs are expected to take their courses on a graded basis (ABCD/F). Exceptions require written approval of the department adviser prior to registration.

The College of Engineering requires that a student complete the Basic Science, Engineering Science and Specialization Requirements for the baccalaureate degree within seven years prior to the date of graduation. Any exceptions require approval of the department and Dean's Office.

Each engineering student is required to complete the Application for Graduation - Check List and submit it to the College of Engineering Advising Office by the drop date of the term prior to the semester in which graduation is sought. Completion of this form is a requirement for graduation. Effective fall of 1987 all incoming students pursuing Bachelor of Science degree programs in Civil or Mechanical Engineering will be required to take the Engineering Intern Exam of the State Board of Professional Engineers Regulation (to achieve 9 hours in area) :

1. **These courses are typically required for Medical School admission. Note that there may be other required courses, such as a course in Human Genetics and the Organic Chemistry laboratories.**
2. **These courses are not normally required for Medical School admission, but are often "highly recommended".**
3. **This is a single semester course in Organic Chemistry. This course does not normally satisfy the admission requirements of most medical schools. It also does not count towards the Chemical Engineering degree (students must take the full year sequence).**
4. **It is important to note that these engineering courses are above and beyond the courses necessary to satisfy the 136 hour requirement. That is, these courses will not also be countable as engineering electives towards the B.S. requirements for any of the departmental degree programs.**

Certificate of Enhancement

The Certificate of Enhancement in (designated discipline) provides students an opportunity to gain an enhanced experience in their chosen field while pursuing an engineering degree and to permit them to receive recognition for the same requirements.

Requirements:

1. Enrolled in a Bachelor of Science degree program in a specified engineering discipline.
2. A minimum of 15 hours of additional elective courses, not included as part of the B.S. degree, from an approved list. Courses must be taken on a letter-grade basis and a minimum of 9 hours must be in engineering courses.
3. A G.P.A. of 2.0 or greater for the 15 (plus) hours.
4. The student must receive the engineering degree to receive the Certificate of Enhancement.
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 new three are from 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.

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 sopho-

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 investigate and promote the application 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 extension by appropriate appropriations. The four colleges of engineering now work together in a joint effort through EIES to assist industry with special problems that can be accurately and efficiently determined.

The year 1990-91 a sponsored research volume of approximately $12 million dollars passed through EIES (USF). All departments, faculty as well as students, contribute to this 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.

STAC

(Southern Technology Applications Center)

STAC is one of NASA's six Regional Technology Transfer centers. Serving the Southwest United States, STAC is 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 universities and federal labs, 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, startup 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 700+ 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 searches have logged over...
200,000 hours of connect time in STAC's international array of more than 2,000 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 efficiently locate critical technologies, marketing and business data, experts, facilities, and equipment to successfully complete 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 STAC also promotes the pursuit of science and engineering careers through guest lectures to K-12 students who might 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.
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.

An Arts-Filled Environment
Recognizing the importance of experiencing the arts beyond the classroom and studio, the College of Fine Arts offers its students, the university community, and the Tampa Bay area numerous performances and exhibitions. These provide a broad variety of experiences, ranging from the traditional to the most avant-garde. From these experiences the student can build awareness of the large array of options available to the artist, and the public can discover the varied opportunities for enjoying the arts. In addition to the presentation of work by our faculty and students, artists of international prestige are periodically in residence giving seminars and workshops and interacting with students and faculty. Through this presence, different perspectives are introduced and the artists' presentations in performance or exhibition expand the cultural horizons of all in attendance. Lists of visiting artists and performing organizations appear in this catalog under Arts, Dance, Music, and Theatre Departments/School. These units in the College of Fine Arts are responsible for the educational activities which directly benefit 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/school. 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/school, may 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 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/school 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 ongoing academic advising, referral services and assistance to all present and potential students. Academic advisers are provided for each of the departments/school 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 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 or former students returning with credits dating ten or more years prior to admission (or readmission) will have those credits reviewed by the College and department/school 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/school of the College.

5. A maximum of 12 semesters of credit 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/school 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 6A-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, 21 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.

10. **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.

11. **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.

12. **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/school 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/school and the college in order to apply these credits toward graduation.

13. When a 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 departmental/school 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, Theatre, and School of Music 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/school 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/school chairperson/director, 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 quadriplicate 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 quadriplicate signed by the student and the instructor and distributed according to instructions.

**Grading Contracts:**
Incompletes must 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 even if the course is listed as Free Electives. Therefore, students enrolled in some courses as Free Electives 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.

**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 free electives allowed in the major program. A student may also choose a double undergraduate major in 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/school as the major. The requirements for these programs are located under the departmental/school academic program descriptions. For University Minor Policy, consult that section in Catalog.

PROGRAMS AND CURRICULA

ART (ART)

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 interested in undergraduate (B.A. seeking) art students are: Drawing, Painting, Sculpture, Ceramics, Computer Images, 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 2201C (4)  ART 2203C (4)  ARH 3001 (4)

2. Art History Concentration:
   ART 2202C (4)  ART 2203C (4)  ARH 3001 (4)
   Plus: Two 4 semester hour classes from 3000 studio level (8)

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 Alice Aycock, Linda Benglis, Jack Burnham, James Casebere, Robert Colescott, Michael Dvorak, Edward Fry, Adam Gopnik, The Gorilla Girls, Nancy Holt, Barbara Kuger, Donald Kuspit, Alfred Leslie, Komart Melamid, Maslon Riggs, Miriam Shapiro, Patterson Sims, Robert Stackhouse, Sidney Tillum, Martha Wilson, Robert Zakarian, and Ellen Zimmerman.

ART MUSEUM

The USF Contemporary 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 Graphicstudio established in 1968. Selections from this collection are loaned through the Art Bank program to museums and institutions throughout the United States and the world.

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 serve the students, staff and faculty of the university and Tampa Bay communities. Brochures and catalogues of major exhibitions are published by the Art Museum and includes scholarly critical essays by leading curators and scholars. Lectures, seminars, workshops and symposia on contemporary issues are presented regularly.

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 to study with visiting artists.

Requirements for the B.A. Degree

Performance Concentration

MODERN CONCENTRATION (44 semester hours minimum)

DAA 2204 Ballet II
DAA 3700 Choreography I
DAA 3105 Modern Dance III

(Repeat for 6 cr. hrs.)
DAA 3205 Ballet III 3
DAA 3701 Choreography II 2
DAA 3480 Performance 1
(Repeat for 2 cr. hrs.)
DAA 4106 Modern Dance IV 4
(Repeat for 8 cr. hrs.)
DAA 4702 Choreography III 2
DAA 4703 Choreography IV 2
DAA 4790 Senior Project 1
DAN 2611 Music for Dance II 2
DAN 3590 Practicum in Dance Prod. I 1
(Repeat for 2 cr. hrs.)
DAN 4111 Survey History of Dance 3
DAN 4112 19 & 20th Century Dance History 3
DAN 4170 Dance Senior Seminar 2
DAN 4906 Directed Study 1

BALLET CONCENTRATION
(44 semester hours minimum)
DAA 2104 Modern Dance II 3
DAA 3700 Choreography I 2
DAA 3105 Modern Dance III 3
DAA 3205 Ballet III 3
(Repeat for 6 cr. hrs.)
DAA 3220 Ballet Variations 1
(Repeat 2 times)
DAA 3480 Performance 1
(Repeat for 2 cr. hrs.)
DAA 4701 Choreography II 2
DAA 4702 Choreography III 2
DAA 4206 Ballet IV 4
(Repeat for 8 cr. hrs.)
DAA 4790 Senior Project 1
DAN 2611 Music for Dance II 2
DAN 3590 Practicum in Dance Prod. I 1
(Repeat for 2 cr. hrs.)
DAN 4111 Survey History of Dance 3
DAN 4112 19 & 20th Century Dance History 3
DAN 4170 Dance Senior Seminar 2
DAN 4906 Directed Study 1

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
- Introduction to Dance - 6A
- Fundamentals of Modern Dance I
- Modern Dance II
- Fundamentals of Ballet I
- Ballet II
- Fundamentals of Jazz Dance
- Music for Dance I
- Music for Dance II
- Dance Improvisation

Survey History of Dance - 6A
19th & 20th Century Dance
Modern Dance IV
Ballet IV
The Teaching of Dance: Theory & Practice
Choreography I
Choreography IV
Selected Topics in Dance
1. Massage for Dance
2. Movement Lab

Department Policy For Academic Progress
A maximum of 17 credit hours of Dance electives may apply toward the dance degree. The 2204 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 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 perform in a work created by one of the seniors. Senior dance majors are required to choreograph a group work and perform a solo as a senior project. Senior Project (DAA 4790) is designed to occur over two semesters.

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 toward 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 each 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 advised and asked to sign a probation form. This form is kept on file with the student’s advisor.
3. Failure to make satisfactory progress after being placed on probation 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., reassignment in good standing or recommendation to drop major.

A dance major is expected to keep his/her weight at a level that
is aesthetically acceptable to the dance faculty for classroom training and all performances.

For other non-major requirements see both Fine Arts College requirements and the University’s General Distribution and graduation requirements.

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

By supplementing its excellent ongoing regular staff-instructed dance curriculum with other professional resources made available through the Visiting Artist and Artist-in-Residence programs, the Dance department provides for dance students an overall dynamic program for practice, study and learning.

**MUSIC (MUS)**

The B.M. Degree (Performance, Piano Pedagogy Composition and Jazz Studies):

The music curriculum is designed for students gifted in the performance and/or composition of music. Candidates for a major in music are required to pass an entrance audition in their respective performance areas. Composition candidates are required to submit appropriate scores and/or tapes of their compositions for faculty approval. All students admitted to the degree program must take a music theory diagnostic examination prior to scheduling music theory classes. Freshmen must pass this examination or enroll in a music fundamentals course which does not fulfill a requirement in the music major curriculum. Transfer students are required to take a similar placement test and enter at the appropriate level. Students may obtain dates and times for these examinations from the School of Music.

Academic programs offered include: Bachelor of Music degree with concentration in Performance (voice, jazz, piano, harp, guitar and orchestral instruments), Composition, Piano Pedagogy, and Jazz Composition.

**General Requirements:**

All students seeking a Bachelor of Music degree are required to (1) complete successfully the piano proficiency and music theory-history-literature requirements; (2) present a partial recital during the junior year (except composition majors); (3) present a full recital during the senior year (except music education majors); (4) present a record of satisfactory recital attendance through registration in MUS 2010 for Jazz Studies-Performance Concentration (54-58 semester hours minimum):

- **Core Requirements for Jazz Studies Performance Concentration:**
  - Music Theory (5)
  - Music History (11)
  - Music Literature (3)
- Piano Pedagogy Concentration (8)
- Composition (4)
- GPA for Jazz Studies bourbon majors (8), Composition (4)

All undergraduate students enrolled in applied music for 4 or 2 credit hours are required to be enrolled concurrently in a major ensemble appropriate to their performing medium.

**Music Electives**

- Performance Concentration 10 hours
- Piano Pedagogy Concentration 4 hours
- Composition Concentration 10 hours

**Core Requirements for Jazz Studies Performance and Jazz Studies Composition Concentrations (54-58 semester hours minimum):**

- **Music Theory (5):**
  - MUT 1111 (3) MUT 2116 (3) MUT 3641 (2)
  - MUT 1112 (3) MUT 2117 (3) MUT 3642 (2)
  - MUT 1241 (1) MUT 2246 (1) MUT 3353 (3)
  - MUT 1242 (1) MUT 2247 (1) MUT 3354 (3)
- **Music Literature (3):**
  - MUL 2111 (3)
- **Music History (11):**
  - MUH 3300 (2)
  - MUH 3301 (3)
  - MUH 3302 (3)
- **Senior Seminar (1):**
  - MUS 4935 (1)

**Elective Hours in Music (9):**

- **Major Ensemble: Performance (8), Composition (4):**
  - All students enrolled in applied music for 4 or 2 hours are required to enroll concurrently in a major ensemble appropriate to their performing medium.

**Additional Requirements for Specific Concentrations:**

**Performance Concentration**

- A total of 32 credit hours of applied music major is required with a minimum of 8 hours to be completed at the 4000 level and concurrent registration in MUS 2010 (Recital Attendance).

- Performance majors in voice must enroll for MUS 3201 for a total of 3 credits and MUS 3501 for 2 credits. Additionally, there is a program exit requirement of earned credit or the equivalent in beginning French, German, and Italian languages.

- Performance majors in piano are required to enroll in MUS 4640 for 4 credits.

**Piano Pedagogy Concentration (86 semester hours minimum):**

The following requirements for the piano pedagogy concentration are in addition to the above performance concentration requirements:

- **Piano Pedagogy (8):**
  - MUS 1112 (3) MUS 2117 (3)
  - MUS 2116 (3) MUS 3642 (2)
  - MUS 1111 (3) MUS 3641 (2)
- **GPA for Jazz Studies bourbon majors (8), Composition (4):**
- Junior and senior recital requirements may be fulfilled in one of the following ways: (1) lecture/recital, (2) ensemble performance, (3) recitals.

**Jazz Studies-Performance Concentration**

The following courses are required in addition to the core requirements:

- **Jazz Studies-Performance Concentration:**
  - MUS 3663 (2)
  - MUS 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:

- **Jazz Studies-Composition Concentration:**
  - MUS 4241 (6)
  - MUS 3231 (6)
  - MUS 2221 (6)
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 lessens 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 concentration 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 2010 (recital attendance).

Composition Courses (30)

Undergraduate 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 2221 (3, 3) MUC 3401 (3) MUC 4311 (2)
MUC 3231 (3, 3) MUC 3402 (3) MUC 4312 (2)
MUC 4241 (3)

and a minimum of 5 hours selected from:

MUC 2301 (2) MUC 3601 (3) MUC 4404 (3)
MUC 3441 (3) MUC 3602 (3) MUC 4501 (2)
MUC 3442 (3) MUC 4403 (3) MUC 3353 (3)

For other degree requirements for all the above concentrations, see Fine Arts College requirements and the University's General Distribution 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 performing 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 2010 (see the specific requirements for MUS 2010 as set by the music faculty).

For other degree requirements see College of Education requirements and the University's General Distribution and graduation requirements.

Note exceptions applicable to this program.

1. Instrumental Specialization (72 cr. hrs.)

Music Education courses (20 cr. hrs.)

MUE 2090 (2) MUE 3450 (1)* MUE 4311 (3)
MUE 3421 (1) MUE 3451 (1) MUE 4321 (2)
MUE 3422 (1, 1) MUE 3460 (1)** MUE 4332 (3)
MUE 3423 (1) MUE 3461 (1) MUE 4480 (2)

* Not required of woodwind majors
** Not required of brass majors

Music courses (min. 52 cr. hrs.)

MUT 1111 (3) MUT 2117 (3) MUG 3300 (2)
MUT 1112 (3) MUT 2246 (1) MUG 3301 (3)
MUT 1241 (1) MUT 2247 (1) MUG 3302 (3)
MUT 1242 (1) MUL 2111 (3) MUG 3101 (2)
MUT 2116 (3)

Applied Music (Principal) 12 cr. hrs. with a minimum of 4 hours at the 3000 level and concurrent registration in MUS 2010.

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 (2) MUE 3423 (1) MUE 4352 (2)
MUE 3421 (1, 1) MUE 3450 (1) or 3451 (1)*
MUE 3422 (1) MUE 3460 (1) or 3461 (1)*
MUE 4331 (3) MUE 4311 (3)

One hour courses must be repeated to achieve 16 cr. hrs.

As determined by audition.

Music courses (min. 56 cr. hrs.)

MUT 1111 (3) MUT 2116 (3) MUL 2111 (3)
MUT 1112 (3) MUT 2117 (3) MUG 3300 (2)
MUT 1241 (1) MUT 2246 (1) MUG 3301 (3)
MUT 1242 (1) MUT 2247 (1) MUG 3302 (3)
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 2010.

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 (15 cr. hrs.)

MUE 3460 (1) or MUE 3461 (1)*
MUE 3450 (1) or MUE 3451 (1)*
MUE 2090 (2)
MUE 3421 (1) MUE 4311 (3)
MUE 3422 (1) MUE 4330 (3)
MUE 3423 (1) MUE 4352 (2)

One hour courses must be repeated to achieve 16 cr. hrs.

As determined by audition.

Music Courses (min. 56 cr. hrs.)

MUT 1111 (3) MUT 2116 (3) MUL 2111 (3)
MUT 1112 (3) MUT 2117 (3) MUG 3300 (2)
MUT 1241 (1) MUT 2246 (1) MUG 3301 (3)
MUT 1242 (1) MUT 2247 (1) MUG 3302 (3)
MUG 3101 (2)
Applied Music, 12 cr. hrs. with a minimum of 4 hours at the 3000 level and concurrent registration in MUS 101.
Applied Music Secondary Courses (2 cr. hrs.)
(one each: string, piano, voice).

Major Concentrations:
- One or more music concentrations will include all core curriculum consisting of 11 hours.

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) Composition, and (3) Performance. 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)
2. Options of Concentrations:
   a. History-Theory-Literature (9-10 hours)
   b. Applied Music (Principal) (8-12 hours)
   c. Composition (9 hours)
3. Admission to all studio music courses is by audition and/or permission of the instructor. Studio courses may be repeated for credit as unique courses.

The Faculty:
The music faculty is made up of a collection of outstanding musicians and scholars whose talents and achievements provide a unique educational resource for all music students. Faculty ensembles such as the Arts Nova Quartet, the Faculty Jazz Quartet, and the Metropolitan Arts Trio provide an important cultural contribution to campus and the surrounding community. Many music faculty perform in professional music ensembles in west central Florida.

Student Organizations:
Sigma Alpha Iota, Phi Mu Alpha Sinfonia, and Pi Kappa Lambda honor societies maintain active chapters on campus. Many music students are affiliated with these organizations.

Financial Aid:
A significant number of students studying in the School of Music qualify for some degree of financial assistance. Financial aid is offered on the basis of talent, academic promise, and need. Students awarded financial assistance from the School of Music need not, however, be majoring in music. These guidelines are available from the chairperson of the Scholarship Committee. Financial aid decisions are made after completion of a performance held in January, February, and March. Write to the Chairperson of the Scholarship Committee, School of Music, for specific dates each year. In addition to general university and School of Music scholarships, there are a number of donated awards. Among these are the Dawn Zimmerman Flute Scholarship, Mary Corey Bogdonas Scholarship, Steve Penovich Scholarship, Marjorie Roe Cello Scholarship, Zbar Piano Award, and the Virginia A. Bridges Music Education Award.

Visiting Artists and Artists-in-Residence:
The department of music utilizes guest composers, conducors, and performing artists to enhance its offerings in terms of teaching and general academic programs. Some prominent musicians who have appeared in the past are: Norman Dello Joio, Olly Wilson, Randall Thompson, Guarneri String Quartet, Virgil Thompson, Beaux Arts Trio, Walter Trampler, Boris Goldovsky, Fred Hemke, Gregg Smith, Lukas Foss, Norman Luboff, Maurice Andre, Phil Woods, Jean Pierre Rampal, David Baker, Adele Adson, John Cage, Byron Janis, Karel Husa, Louis Bellson, Leslie Bassett, David Samuels, Samuel Adler, Julius Baker, Gunther Schuller, Ransom Wilson, Robert Merrill, T. J. Anderson, Doc Severinsen, Hale Smith, Bethany Beardslee, George Russell, Robert Shaw, Art Blakey, Toshiko Akiyoshi, Andre Watts, Christopher Hogwood.

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 pursues the Bachelor of Arts degree, one of the following areas of study: Performance, Design, Theatre Arts, or Theatre Education. In order to complete the required preparation in design, a Bachelor of Arts degree in Design is offered in the department. The department also offers a minor in Theatre.

The Department also offers opportunities to the advanced student to work with visiting professional companies.

Visiting Artists and Artists-in-Residence:
TheatreUSF actively promotes guest artists on campus. A partial list of the internationally known artists and the theatres with which they are affiliated includes: Edward Albee, Marge Barstow, Joseph Chaikin, Daniel Chumley, Martin Esslin, H. D. Flowers, Christopher Fry, John and Lisel Gale, Patrick Garland, Miriam Goldina, Boris Goldovsky, Henry Hewes, Jeff Jones, Bob Kelly, Mesrop Kesdekanian, Michael Koehr, Jon Lovett, Marcel Marceau, Sidney Poitier, Sam Mendes, Bob Moody, Eric Overmyer, Estelle Parsons, Olga Petrovna, Ben Piazza, Sergei Ponomarov, Alan Schneider, Doug Watson, and Able and Gordon. These and others have helped the department develop relationships with: London's West End, The Actors Studio, London's Abbey Theatre, Broadway, Washington's Arena Stage, San Francisco Mime Troupe, The Stratford Ontario Shakespeare Festival, The Edinburgh International Festival, The Welsh National Theatre, the London Academy of Music and Dramatic Art, the Working Theatre, Coventry's Belgrade Theatre, the Deutsches Theatre, Free Theatre of Munich, The Polish Theatre, The Chichester Festival, the Edinburgh Festival and the Spoleto Festival.

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 credit hours, 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 Theatre Fundamentals
- TPA 2200 Theatre Crafts: Stagecraft
- TPP 2110 Voice-Body-Improvisation
- Choice of one:
  - TPA 2223 Theatre Crafts: Lighting
  - TPA 2232 Theatre Crafts: Costume

**Second Year (10 credit hours)**
- THE 3100 Theatre History
- TPA 3004 Means of Visual Expression
- TPP 3111 Workshop for Text Analysis

**Third Year (8 credit hours)**
- Choice of two:
  - THE 4320 Theatre of Myth and Ritual
  - THE 4330 Shakespeare for the Theatre
  - THE 4350 19th Century Theatre Revolution
  - THE 4401 O'Neill and After
  - THE 4442 Comedy of the Classic and Neo-Classic Stage
  - THE 4480 Drama - Special Topics
- plus 2 credits of THE 3925 for Pi*

**Fourth Year (6 hours)**
- Choice of one:
  - THE 4180 Theatre Origins
  - THE 4562 Senior Colloquium
- plus 2 credits of THE 4927 for Pi*

*Theatre Crafts Lab: TPA 2200 Theatre Crafts: Stagecraft, TPA 2223 Theatre Crafts Lighting, TPA 2232 Theatre Crafts Costume has a laboratory (LAB) in addition to the regularly scheduled class sessions. LAB guidelines are available in the Theatre Office.

**Production Involvements:** All Theatre Majors must complete 4 Pi's (Production Involvements) as part of their graduation requirements. Pi's must be taken under THE 3925 Production Involvement and/or THE 4927 Advanced Production Involvement for a total of 4 Pi's. Students may register for Pi credit beginning in the second semester of the Sophomore year and are expected to register each consecutive semester until completion of the four involvements. Pi assignments are made by faculty committee following the student's completion of a Pi request form and in the Theatre Office. Pi guidelines are available in the Theatre Office.

**Audition and Portfolio Review:** All students desiring admittance into the Scene Study sequence must audition and those entering the upper level design sequence must present a portfolio.

**Required Courses for Areas of Study:**

**Performance Area**

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

**Third Year (10 hours)**
- TPP 3500 Body Disciplines
- TPP 3790 Voice Preparation
- TPP 4150 Scene Study I
- TPP 4152 Scene Study II

**Fourth Year (9 hours)**
- TPP 4140 Styles of Acting
- TPP 4180 Advanced Scene Study
- TPP 4920 Senior Workshop for Actors

**Design Area**

(55 hours minimum with core) - 20 hours Theatre, 4 hours Art as follows:

**Second Year (3 hours)**
- Complete Theatre Crafts sequence with TPA 2223 Lighting or TPA 2232 Costume
- ART 3301C* Drawing I

*required in the Theatre Design Area, recommended to be taken upon completion of prerequisite TPA 3004 Means of Visual Expression

**Third Year (9 credit hours)**
- TPA 4208 Stagecraft and Drafting
- Choice of two depending on design concentration:
  - TPA 3221 Lighting: Theory and Practice
  - THE 4264 History of Costume
  - THE 4266 Architecture and Decor

**Fourth Year (8 credit hours)**
- Choice of 2 depending on design area:
- TPA 4020 Light Design
- TPA 4040 Costume Design
- TPA 4060 Scene Design

**Theatre Arts Area**

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, Playwriting, 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)

**Note to students:** The curriculum for this program is currently being revised. Students are responsible for getting a copy of the revised program during the 1992/93 academic year. It is each student's responsibility to keep a copy of the revision to refer to for their graduation requirements under this catalog.

**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 3925 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):

- THE 2020 Theatre Fundamentals
- TPA 2200 Theatre Crafts: Stagecraft
- TPP 2110 Voice-Body-Improvisation
- THE 3925 Production Involvement
- THE 4927 Advanced Production Involvement
- Choice of one:
- TPA 2223 Theatre Crafts: Lighting
- TPA 2232 Theatre Crafts: Costume
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 Pl's (Production Involvement) as part of their graduation requirements. Pl'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 Pl 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 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 Directed Studies (Research & Design Creative Project)
7 hours in completion of third area of design and its prerequisite:
hours in the following:
TPP 4310 Directing
THE 4900 Directed Reading
Choice of one of the following:
TPP 4150 Scene Study I
TPP 4230 Lab Workshop in Performance
7 hours of additional electives of which 6 must be outside the Department of Theatre.

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
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 11:1; ninety-four percent of the faculty hold earned doctorates. Students work closely with faculty members in small classes, tutorials, and on individual projects.

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 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 College owns a number of laboratory facilities, 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 an exchange program with the University of Glasgow.

Areas of Study

All studies 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, Computer Science, Economics, Environmental Studies, Fine Arts, History, International Relations, Languages, Literature, Mathematics, Medieval & Renaissance Studies, Music, Philosophy, Physics, Political Science, Psychology, Public Policy, Religion, Sociology, Urban Studies. Elementary through advanced studies in French, German, Russian, Spanish, Latin and Greek language and literature are available.

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 required, two of which must be taken during the spring semester. A maximum of 12 credits may be taken during the winter 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, a graded research paper from an English or history class, teacher's recommendation, and counselor recommendation. 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 67% 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 January 15. 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 Office of Admissions, 5700 N. Tamiami Trail, Sarasota, Florida 34243. Phone (813) 359-4269.

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 their 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 living 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 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.

The program has two sequences in the undergraduate program, one for qualified students with no previous preparation in nursing (basic students), and one for registered nurses, who are graduates of diploma or associate degree nursing programs. The basic sequence is designed so that students who have completed the prerequisite/support courses 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 basis on the Tampa campus, or on specific university campuses. 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.

There are two sequences in the undergraduate program, one for registered nurses who are graduates of diploma or associate degree nursing programs. The basic sequence is designed so that students who have completed the prerequisite/support courses 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 basis on the Tampa campus, or on specific university campuses. 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 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 specified 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.

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 to individuals, families, and communities. 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 assess, 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.

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 prerequisite/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.

Basic 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, Office of Student Affairs, 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 requirements, and the availability of the appropriate sequence of nursing courses on the campus to which they are seeking to pursue coursework. The deadline for receipt of an application from registered nurse students is the University deadline date for the semester in which they intend to enroll. For more specific information, contact the College of Nursing Office of Student Affairs.

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 general education support course.
4. Complete prior to enrollment the University general education and specific general education support courses required for admission to the major.
5. Complete all general education support courses with not more than two (2) repeated courses and not more than one (1) repeat of any given 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. Provide evidence of 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 admission 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 general education requirements. Nursing courses may be selected from the following:
NUR 3105 Introduction to Professional Nursing
NUR 3007 Nursing Process
NUR 3065C Client Assessment I
NUR 3706 Nursing Concepts in Secondary Care
NUR 3706L Nursing Practicum I
NUR 3826 Ethical/Legal Aspects in Nursing and Health Care
NUR 4165 Introduction to Research
Electives
The following courses are restricted to fully admitted students: NUR 4607, NUR 4607L, NUR 4827C, and NUR 4943L. Students who are admitted conditionally must satisfy written contract requirements.

Specific Course Requirements

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 Office of Student Affairs (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, physiology, and microbiology). 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)
Nutrition one course in modern American
A. Chemistry - A minimum of 6 semester credits. Courses
b. Chemistry - A minimum of 6 semester credits. Courses
BSC 2010, and BSC 2011. CLEP is acceptable.
c. Other - the remaining credits can be earned by completing
to meet the course requirements for each course.
d. Social Sciences - completion of each of the following with a grade
3) phylogenetic survey of life kingdoms, 6) organic chemistry.
B. Microbiology - one course. CLEP is not acceptable. APB
A. American Government - one course in modern American
c. Anatomy and Physiology - one course. A combined course
4) theory and application in nursing.
d. Human Growth and Development (Life Span) - Must
in genetics, (4) evolution, (5) phylogenetic survey of plant and
animal kingdoms, (6) ecology, etc.
BSC 2010, and BSC 2011. CLEP is acceptable.
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.
CLEP is acceptable.
tional requirements of the student's intended major. The credits
earned by passing the ACT/PEP examinations in nursing apply
to the B.S. degree with a major in nursing 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 pro-
grams may receive up to 23 semester general elective lower level
credits for their previous nursing education.
4. Both basic and registered nurse students may earn up to 6
semester credits and fulfill the college's prerequisite require-
tment in anatomy and physiology through successful completion
of the ACT/PEP examination in anatomy and physiology, and up
to 3 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 sup-
sport courses (physical, biological, social and behavioral), 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 for the 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 and 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 - Basic Baccalaureate Sequence

Junior Year (2 semesters)
NUR 3105 Introduction to Professional Nursing (3)
NUR 3615 Nursing Process I (3)
NUR 3615L Nursing Process I Lab (2)
NUR 3065C Client Assessment I (2)
NUR 3826 Ethical-Legal Aspects in Nursing and Health Care (2)
NUR 3456 Nursing Process II (2)
NUR 3456L Nursing Process II Lab (2)
NUR 3535 Nursing Process III (2)
NUR 3535L Nursing Process III Lab (2)
NUR 3066C Introduction to Community Health Nursing (2)

Senior Year (3 semesters)
NUR 4165 Introduction to Research (2)
NUR 4285C Nursing Process IV (1)
NUR 4256 Nursing Process V (2)
NUR 4256L Nursing Process V Lab (2)
NUR 3827 Leadership-Management Aspects in Community
Health Nursing (2)
NUR 4257 Nursing Process VI (2)
NUR 4257L Nursing Process VI Lab (2)
NUR 4258 Nursing Process VII (2)
NUR 4265 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, econom-
ics, 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 (3 semesters)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NUR 3007</td>
<td>Nursing Process (2)</td>
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<tr>
<td>NUR 3826</td>
<td>Ethical-Legal Aspects of Nursing and Health Care (2)</td>
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<tr>
<td>NUR 3105</td>
<td>Introduction to Professional Nursing (3)</td>
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<tr>
<td>NUR 3065C</td>
<td>Client Assessment I (2)</td>
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<td>NUR 3706</td>
<td>Nursing Concepts in Secondary Care (4)</td>
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<td>NUR 3706L</td>
<td>Nursing Practicum I (2)</td>
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<td>NUR 4165</td>
<td>Introduction to Research (2)</td>
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<td>NUR 4607</td>
<td>Nursing Concepts in Primary Care (4)</td>
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<tr>
<td>NUR 4607L</td>
<td>Nursing Practicum II (3)</td>
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</tbody>
</table>

### Requirements

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 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).
The College of Public Health began offering courses in 1984 and is fully accredited by the Council on Education for Public Health. The primary aim of the College is to provide trained health professionals who can meet the pressing health needs of the State and nation. The College also serves as a State center for public health research and information. Often cited as a bellwether state, due in part to its diverse population, Florida serves as an excellent environment for studying current and emerging health care issues.

The field of public health is broad. It focuses upon the prevention of illness, the control of infectious and chronic diseases and the methods for providing care to targeted populations such as those faced with geographic, financial, cultural and other access barriers. Public health is concerned with keeping health care costs down and finding cost-effective ways to deal with the medically indigent population. It serves to address environmental issues as they affect populations as well as health and safety in the workplace.

Despite this diversity, the common focus of public health education is on preventing disease and promoting health in populations. 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). It is recommended that students enroll in undergraduate programs related to the field of public health. These programs include social sciences, natural sciences, behavioral sciences, premed, nursing, education, etc. 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.

Undergraduate students seeking careers in public health including Health Administration and Management, Environmental Health, Industrial Hygiene, Safety Management, Health Education, Material and Child Health, Epidemiology and Biostatistics should refer to the USF Graduate Catalog in order to plan an undergraduate program that will meet the College of Public Health admission requirements for graduate work.

Students interested in these programs should contact the Office of Academics at the College of Public Health for specific information, 974-6665.
### COURSE DESCRIPTIONS

**UNIVERSITY OF SOUTH FLORIDA - 1993/94 UNDERGRADUATE CATALOG**

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 2043, 2043L GENERAL PHYSICS & LABORATORY** (3:1)

Credits separated by a hyphen indicate variable credit:

**AMH 2020, 2020 AMERICAN HISTORY I, II** (4,4)

Credits separated by a colon indicate unified courses offered in different semesters:

**HUM 4905 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:

- **PR** Prerequisite
- **CR** Corequisite
- **Lec.** Lecture
- **Lab.** Laboratory
- **Dem.** Demonstration
- **Proc.** Problem
- **Dis.** Discussion
- **A** 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:

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#### Cross-Listing of Departments and Programs

Alphabetically by College, Department/Program

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### COURSE DESCRIPTIONS

**UNIVERSITY OF SOUTH FLORIDA - 1993/94 UNDERGRADUATE CATALOG**

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**College of Engineering**

| Basic and Interdisciplinary Engineering | | | |
| Chemical Engineering | EGN | ECH | EME |
| Civil Engineering and Mechanics | CEG | CES | CNG |
| Computer Science & Engineering | CAP | CGS | CIS |
| Computer Service Courses | CAP | CGS | CIS |
| Electrical Engineering | CAP | CGS | CIS |
| Engineering Technology | CAP | CGS | CIS |
| Industrial and Management Systems | CAP | CGS | CIS |
| Mechanical Engineering | CAP | CGS | CIS |

**College of Fine Arts**

| Art | ARH | ART | |
| Dance | DAA | DAN | |
| Music | MUC | MUG | |
| | MUN | MUS | |
| Music Education | MUE | THE | |
| Theatre | MUE | THE | |
| College of Nursing | MUE | THE | |

**College of Nursing**

| Nursing | HUN | NUR | |

**Cross-Listing Departments/Programs**

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COURSE DESCRIPTIONS

Decision Sciences
COE Cooperative Education
COM Communication
COP Cooperative Service Courses, Computer Science & Engineering, Library, Media & Information Studies, Mathematics
COT Computer Science & Engineering
CPO Africana Studies, Political Science
CRW English
CWR Civil Engineering & Mechanics
DAA Dance, Physical Education Elective
DAN Dance
DEC Distributive & Marketing Education
DEP Psychology
EAS Chemical Engineering & Mechanics
ECH Chemical and Mechanical Engineering
ECT Civil Engineering and Mechanics
ECS Economics
ECO Economics
ECP Africana Studies, Economics
ECS Economics
EDA Administration/Supervision
EDC Curriculum, Elementary Education
EDE Foundations, Measurement-Research, Computers in Education
EDG Art Education, Curriculum, Communication-Speech Communication, Elementary Education, Special Education
EDH Higher Education
EDM Curriculum
EDS Elementary Education, Administration/Supervision
EED Curriculum, Elementary Education
EED Special Education
EEL Computer Science & Engineering, Electrical Engineering
EES Civil Engineering & Mechanics
EEX Special Education
EGC Counselor Education, Rehabilitation Counseling
EGI Special Education
EGM Civil Engineering & Mechanics
EGN Basic & Interdisciplinary Engineering
EIA Industrial & Technical Education
EIN Industrial & Management Systems Engineering
EIV Industrial & Technical Education
ELD Special Education
ELR Electrical Engineering
EMA Civil Engineering & Mechanics
EMC Chemical & Mechanical Engineering
EMPL Chemical & Mechanical Engineering
EMR Special Education
ENC English
ENE Computers in Education, Content Specializations
ENG English
ENL English
ENU Chemical & Mechanical Engineering
ENV Civil Engineering and Mechanics
ENY Zoology (Biology)
EPH Special Education
ESC Curriculum
ESI Industrial & Management Systems Engineering, Computer Science Engineering
EST Linguistics
ETE Engineering Technology
ETG Engineering Technology
ETI Engineering Technology
EUN International Studies Program
EVI Special Education
EVT Industrial/Technical Education
EXP Psychology
FIL Mass Communications
FIN Finance
FLE Content Specializations Foreign Language Education, French (Language)
FOL General Foreign Languages
FOW Romance (Language)
FRE French (Language)
FRW French (Language)
GEA Geography
GEB Common Body of Knowledge, Economics, General Business Administration, Information Systems & Decision Sciences
GEO Geography
GER German (Language)
GERW German (Language)
GERY Gerontology
GIA Government & International Affairs
GLY Geology
GMS Medical Sciences, Medicine
GRE Greek (Classics), Religious Studies
GRK Greek (Classics)
GRW Greek (Classics)
HBR Hebrew (Language)
HEB Ancient Studies (Religious Studies)
HES Content Specialization, Physical Education for Teachers, Public Health
HIS History
HLP Elementary Education
HSC Public Health
HUM Africana Studies, Humanities, Humanities Education
HUN Nursing
HUS Human Services
IDS Honors Program, Liberal Studies, Off-Campus Term
INP Psychology
INR Africana Studies, International Studies Program, Political Science
ISE Information Systems & Decision Sciences
ISS Africana Studies, International Studies Program, Social Sciences Interdisciplinary
ITA Italian (Language)
ITW Italian (Language)
JPN Japanese (Language)
JOU Mass Communications
LAE Curriculum, Elementary Education, English, English Education
LAH History
LAS International Studies Program
LAT Latin (Language)
LEI Physical Education for Teachers, Sociology
LUN Communication, English, Linguistics
LIS Library, Media and Information Studies
LIT English, Women's Studies
LWN Latin (Classics)
MAC Mathematics
MAC Mathematics
MAD Mathematics
MAE Content Specializations, Elementary Education, Mathematics, Mathematics, Mathematics
MAN Foundation Courses in Business (Graduate), General Business Administration, Management
MAP Mathematics
MAR Marketing
MAS Mathematics
MAT Mathematics
MCE Mathematics
MCB Microbiology (Biology)
MEL Medicine
MET Geography
MGF Mathematics
MHR Mathematics
MIS Military Science
MLS Medical Technology
MMC Mass Communications
MTG Mathematics
MUC Music
MUE Elementary Education, Music Education
MUG Music
MUI Anthropology, Music
MUL Music
MUN Music
MUI Music
MUS Music
MUT Music
MVW Music
MVV Music
NNR Nursing
NUR Nursing
OSC Marine Science
OCC Marine Science
OCE Geology, Marine Science
OCH Marine Science
OCR Marine Science
ORI Communication
PAP Public Administration
PCB Biology, Marine Science, Microbiology (Biology), Zoology (Bioogy)
PEI Physical Education Elective
PEN Physical Education Elective
PEP Adult Education
PEQ Physical Education Elective, Physical Education for Teachers
PET Physical Education Elective, Physical Education for Teachers, Adult
COURSE DESCRIPTIONS
UNIVERSITY OF SOUTH FLORIDA - 1993/94 UNDERGRADUATE CATALOG

EDUCATION

PGY Mass Communications, Art
PHH Philosophy
PHI Linguistics, Philosophy
PHM African Studies, Philosophy
PHP Philosophy
PHS Physics
PHY Physics
POR Portuguese (Language)
POS Political Science, Women's Studies
POT Political Science
POW Portuguese (Language)
PSC Psychology
PSY Psychology
PUR Africanas Studies, Political Science
QMB Information Systems & Decision Sciences, Management
REA English
RED Elementary Education, Reading Education
REE Finance
REL Religious Studies, Women's Studies
RMI Finance
RTV Mass Communications
RUS Russian (Language)
RUT Russian (Language)
RUW Russian (Language)
SCE Content Specializations, Elementary Education, Science Education
SED Communication, Communication-Speech Communication, Speech Communication-English Education Content Specializations
SLS Counselor Education
SOC Psychology, Women's Studies
SOW Human Services, Social Work
SPA Communication Science & Disorders
SPC Communication
SPN Spanish (Language)
SPS Foundations
SPW Spanish (Language)
SSE Content Specialization, Elementary Education, Social Science Education
STA Mathematics, Social Sciences Interdisciplinary
SUR Civil Engineering and Mechanics
SYA Sociology
SYD Sociology
SYG Sociology
SYO Sociology
SYP Sociology
TAX Accounting
TIE Theatre
TPA Theatre
TPP Theatre
TSL Linguistics
TTE Civil Engineering & Mechanics
URP Geography, Political Sciences, Public Administration
VIC Mass Communications
WOM History
WSI History, International Studies Program, Women's Studies
YOR Yoruba (Language)
ZOO Biology, Marine Science, Zoology (Biology)

COURSE LEVEL DEFINITION
Lower
0000-1999 Freshman Level
2000-2999 Sophomore Level
Upper
3000-3999 Junior Level
4000-4999 Senior Level
Graduate
5000-5999 Senior/Graduate Level
6000-Up Graduate Level

FLORIDA'S STATEWIDE COURSE NUMBERING SYSTEM

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida's Statewide Course Numbering System (SCNS). This common numbering system is used by all public postsecondary institutions in Florida and by two participating private institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions.

Each participating institution controls the title, credit, and content of its own courses and assigns the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course number are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are expected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have meaning in the SCNS. The list of course prefixes and numbers, along with their generic titles, is referred to as the "SCNS taxonomy." Descriptions of the content of courses are referred to as "course equivalency profiles."

General Rule for Course Equivalencies: Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between the participating institutions that offer the course, with a few exceptions. (Exceptions are listed below.)

For example, a survey course in social problems is offered by 31 different postsecondary institutions. Each institution uses "SYG_010" to identify its social problems course. The level code is the first digit and represents the year in which students normally take this course at a specific institution. In the SCNS taxonomy, "SYG" means "Sociology, General," the century digit "0" represents "Under-Entry Level," and "010" means "Survey Course," and the unit digit "0" represents "Social Problems."

In science and other areas, a "C" or "L" after the course number is known as a lab indicator. The "C" represents a combined lecture and laboratory course that meets in the same place at the same time. The "L" represents a laboratory course or the laboratory part of a course, having the same prefix and course number without a lab indicator, which meets at a different time or place.

Transfer of any successfully completed course from one participating institution to another is guaranteed in cases where the course to be transferred is offered by the receiving institution and is identified by the same prefix and last three digits at both institutions. For example, SYG 1010 is offered at a state community college. The same course is offered at a state university as SYG 1010. A student who has successfully completed SYG 1010 at the community college is guaranteed to receive transfer credit for SYG 1010 at the state university if the student transfers. The student cannot be required to take SYG 1010 again since SYG 1010 is equivalent to SYG 1010. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed which have not been designated as equivalent.

Sometimes, as in Chemistry, a sequence of one or more courses must be completed at the same institution in order for the courses to be transferable to another institution, even if the course prefix and numbers are the same. This information is contained in the individual SCNS course equivalency profiles for each course in the sequence.

Course Prefix: The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or sub-category of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix used to identify the course.

Authority for Acceptance of Equivalent Courses: State Board of Education Rule 6A-10.024(17), Florida Administrative Code, reads:

When a student transfers among institutions that participate in the common course designation and numbering system, the receiving institution shall award credit for courses satisfactorily completed at the previous participating institutions when the courses are judged by the appropriate common course designation and numbering system faculty task forces to be equivalent to courses offered at the receiving institution and are entered in the course numbering system. Credit so awarded can be used by transfer students to satisfy requirements in these institutions on the same basis as credit native students.

Exceptions to the General Rule for Equivalency: The following courses are exceptions to the general rule for course equivalencies and may not be transferable. Transferability is at the discretion of the receiving institution:

A. Courses in the ___900___999 series (e.g., ART 2905)
B. Internships, practice, clinical experiences, and study abroad courses
C. Performance or studio courses in Art, Dance, Theater, and Music
D. Skills courses in Criminal Justice
E. Graduate courses

College preparatory and vocational preparatory courses may not be used to satisfy degree requirements or academic core transfer requirements.

Questions about the SCNS and appeals regarding course credit transfer decisions should be directed to William H. Scheuerle, Dean, Undergraduate Studies, University of South Florida, 2020 East Fowler Avenue, Tampa, Florida 33620-6920, or the Florida Department of Education, Office of Postsecondary Education Coordination, Atlantic Education Center, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling telephone number (904) 488-6402 or Suncom 278-6402.
UNIVERSITY-WIDE COURSES

UNIVERSITY OF SOUTH FLORIDA - 1993/94 UNDERGRADUATE CATALOG

COOPERATIVE EDUCATION
Associate Director: Ray Easterlin, Coordinator: Sherri L. Greenberg.

AEROSPACE STUDIES
Professor: Maj Patricia B. Larson; Assistant Professors: Capt James J. Chambers, Capt Darryl E. Rogers, Capt Jeffrey M. Plate.

HONORS PROGRAM
Director: Stuart Silverman (Instructors for the Honors courses are recruited from among the University's outstanding teacher-scholars).

MILITARY SCIENCE
Professor: LTC Joseph Soltas; Assistant Professors: MAJ James A. Fraley, Jr., CPT Gary Killbreath, CPT Michael Morrison, CPT Bernard Samuel.

OFF-CAMPUS TERM
Director: D. Keith Lupton.

AEROSPACE STUDIES
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.

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.

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.

AFR 2130 U.S. AIR POWER: ASCENSION TO PROMINENCE (1)
A study of air power from balloons and dirigibles through the jet age. Emphasis is on the employment of air power in WWII and WWII and how it affected the evolution of air power concepts and doctrine.

AFR 2140 U.S. AIR POWER: KEY TO DETERRENCE (1)
A historical review of air power employment in military and nonmilitary operations in support of national objectives. Emphasis is on the period from post WWII to present.

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 five 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 (POC). 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.

AFR 3220 AIR FORCE LEADERSHIP AND MANAGEMENT-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.

AFR 3221 AIR FORCE LEADERSHIP AND MANAGEMENT-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 managerial 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.

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.

AFR 4211 NATIONAL SECURITY FORCES IN CONTEMPORARY AMERICAN SOCIETY II (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.

ARCHITECTURE

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

COOPERATIVE EDUCATION

COE 1940 COOPERATIVE EDUCATION, 1ST TRAINING PERIOD (0)
PR: 30 hours of academic credit, acceptance in Cooperative Education Program. (S/U only.)

COE 1941 COOPERATIVE EDUCATION, 2ND TRAINING PERIOD (0)
PR: COE 1940. (S/U only.)

COE 2942 COOPERATIVE EDUCATION, 3RD TRAINING PERIOD (0)
PR: COE 1941. (S/U only.)

COE 2943 COOPERATIVE EDUCATION, 4TH TRAINING PERIOD (0)
PR: COE 2942. (S/U only.)

COE 3944 COOPERATIVE EDUCATION, 5TH TRAINING PERIOD (0)
PR: COE 2943. (S/U only.)

COE 3945 COOPERATIVE EDUCATION, 6TH TRAINING PERIOD (0)
PR: COE 3944. (S/U only.)

COE 4946 COOPERATIVE EDUCATION, 7TH TRAINING PERIOD (0)
PR: COE 3945. (S/U only.)

COE 4947 COOPERATIVE EDUCATION, 8TH TRAINING PERIOD (0)
PR: COE 4946. (S/U only.)

COE 4948 COOPERATIVE EDUCATION, 9TH TRAINING PERIOD (0)
PR: COE 4947. (S/U only.)

COE 4949 COOPERATIVE EDUCATION, 10TH TRAINING EDUCATION (0)
PR: COE 4948. (S/U only.)

HONORS PROGRAM

University Honors Students must take all of the following including at least one 2 semesters of either Thesis or Project (but not both).

IDH 2010 ACQUISITION OF KNOWLEDGE (3)
PR: Admission into the Honors Program. An appreciation of the problems of how human understanding proceeds through operations such as perception, classification, and inference, among others, as well as the open philosophical questions behind these operations.
IDH 3100 ARTS/HUMANITIES HONORS (3)
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 (3)
PR: IDH 2010. An exploration of current knowledge concerning fundamental principles in the Sciences, their potential for application and attendant ethical and philosophical questions.

IDH 3400 SOCIAL AND BEHAVIORAL SCIENCES HONORS (3)

IDH 3600 SEMINAR IN APPLIED ETHICS (3)
PR: IDH 2010. This course explores ethical issues related to selected topics such as Ethics of Technology, Ethics in Business, Bio-Medical Ethics, Personal Ethics Development.

IDH 4000 HONORS PROGRAM SEMINAR (4)
PR: IDH 2100. 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.

IDH 4950 HONORS PROJECT (3)
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 taken for 2 semesters.

IDS 4970 HONORS THESIS (3)
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 (1)
Introduction, purpose, and obligation of the Army and ROTC. Introduction to military customs and traditions; rank structure and the role of an Army officer.

MIS 1400 FUNDAMENTALS OF LEADERSHIP DEVELOPMENT (1)
Basic leadership techniques and principles, professional ethics, service, subordinate leadership, leadership problems, basic counseling and management techniques.

MIS 2601 MILITARY TRAINING MANAGEMENT AND INSTRUCTIONAL TECHNIQUES (1)
Develops an understanding of the philosophical 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.

MIS 2610 LEADERSHIP ASSESSMENT (1)
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.

MIS 3302 SMALL UNIT OPERATIONS (3)
PR: Permission of Department. 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.

MIS 3404 LEADERSHIP FUNDAMENTALS - TACTICS AND CAMP PREPARATION (3)
PR: Permission of Department. Improves cadet proficiency in the 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.

MIS 4002 ARMY AS A PROFESSION (2)
PR: Permission of Department. 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 (3)
PR: Permission of Department. Provides a basic understanding of the professional soldier's responsibilities to the Army and the nation. Attempts to improve ethical decision-making skills through an examination of the need for ethical conduct, greater awareness and sensitivity to ethical issues, and the opportunity to apply these abilities in real world case study situations. Included are seminars to acquaint the new lieutenant with his/her relationship to NCOs, company grade officers, and senior officers.

MIS 4930 ADVANCED DIRECTED STUDY AND RESEARCH (1-3)
PR: CI and permission of Professor of Military Science. Intensive individual study in a particular aspect of military science that is not covered in regular course offerings. Request for enrollment must be made prior to registration in the form of a written proposal. May be repeated for credit.

OFF-CAMPUS TERM

IDS 4900 DIRECTED READINGS (1-4)
PR: OCT Program approval. Open to all students approved for OCT Program. Provides students with community related research. May be repeated up to 8 credit hours.

IDS 4910 DIRECTED RESEARCH (1-4)
PR: OCT Program approval. To provide students with community related research experience in areas of specific interest. May be repeated for 8 credit hours.

IDS 4942 OFF-CAMPUS TERM SOCIAL ACTION PROJECT (1-4)
PR: OCT Program approval. May be repeated for 4 credit hours. (S/U only.)

IDS 4943 OFF-CAMPUS TERM SPECIAL PROJECT (1-2)
PR: OCT Program approval. (S/U only.)

IDS 4955 OFF-CAMPUS TERM INTERNATIONAL PROGRAM (1-2)
PR: OCT Program approval. (S/U only.)

PUBLIC AND COMMUNITY HEALTH

HSC 2100 CONTEMPORARY HEALTH SCIENCE (3)
A comprehensive approach to health concerns and problems in contemporary society, including methods of assessing individual health needs.

HSC 4233 PREVENTIVE HEALTH PRACTICES IN THE WORKPLACE (3)
PR: CI. The content of this course focuses on a survey of health problems and concerns as they exist in a variety of work environments. No prior education or experience in this area is required.

HSC 4511 HUMAN STRUCTURE AND FUNCTION (3)
PR: Fundamentals of biology with lab or CI. Major concepts of the structure and function of the human body systems and methods by which these concepts may be taught.

HSC 4553 SURVEY OF HUMAN DISEASES (3)
PR: Fundamentals of Biology with lab or CI. An overview of the nature, types, and mechanisms of diseases of the major body systems.

HSC 4933 SPECIAL TOPICS: PUBLIC HEALTH (1-6)
PR: CI. The content of this course will be governed by student demand and instructor interest. May be repeated for credit for different topics only.

HSC 5319 HEALTH PROBLEMS OF SCHOOL AGE POPULATION (3)
A study of health problems and needs of school age students, including a health status screening laboratory.
AFRICANA STUDIES

AMERICAN STUDIES
Program Director: Amy Sparks; Professors: J. B. Moore, R. E. Snyder; Associate Professors: R. A. Banes, P. J. Brewer; Other Faculty: S. A. Zylstra.

ANTHROPOLOGY

ASTRONOMY
Director: C. A. Williams; Professor: C. A. Williams (Mathematics Department), Visiting Professor: G. Hammond.

BACHELOR OF INDEPENDENT STUDIES
Director: K. E. Kearney; Area Coordinators: J. Bell (BIS Humanities), H. Mushinsky (BIS Natural Sciences), P. Waterman (BIS Social & Behavioral Sciences).

BIOLOGY

CHEMISTRY

CLASSES
Director: TBA; Professor: A. L. Motto; Associate Professor: J. D. Noonan; Assistant Professor: J. S. Campbell; Other Faculty: J. R. Clark, W. M. Murray, J. F. Strange, G. K. Tipps.

COMMUNICATION

COMMUNICATION SCIENCES AND DISORDERS

CRIMINOLOGY

ENGLISH

GEOGRAPHY

GEOLOGY

GERONTOLOGY

HISTORY

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

INTERDISCIPLINARY SOCIAL SCIENCES
Director: J. B. Snook; Professor: S. M. D. Stamps, Jr.; Associate Professor: J. B. Snook; Lecturer: R. Gagan.

INTERNATIONAL STUDIES
Director: TBA; Professors: C. W. Armade, H. W. Nelsen, M. T. Orr; Associate Professors: M. M. Amen, R. Barylski, A. Hechiche, S. S. Northcutt, D. Slider; Assistant Professors: E. Conte-Morgan, P. Ruffin; Assistant Professor Emeritus: J. W. Palm; Joint Appointment: Professors F. U. Ohaegbulam, S. D. Stamps, H. Vanden; Associate Professor: K. R. Glover, R. Khatro; Assistant Professor: M. Milani.
INTERIM DIRECTOR: A. Prentice; Associate Professors: J. A. McCrossan, F. C. Pfister, A. Prentice; Professor Emeritus: J. K. Gates, A.G. Smith; Associate Professors: B. El-Haliday, J. M. Knego, H. M. Smith, T. C. Wilson; Courtesy Associate Professor: Y. L. Ralston; Assistant Professor: V. Gregory.

MARINE SCIENCE

MASS COMMUNICATIONS

MATHEMATICS
Director: C. F. Hendry; Courtesy Professors: L. McCann (Baptist Medical Center), R. S. Gnowasky (Tampa General Hospital), W. Burgert (Tallahassee Memorial Regional Medical Center), L. J. Davis, (Bayfront Medical Center), N. M. Hardy (University Medical Center/Jacksonville), R. F. Holcomb (Florida Hospital), F. C. Holland (Baptist Medical Center), R. Poppiti, Jr. (Mount Sinai Medical Center); Courtesy Lecturers: S. Pemberton (Baptist Medical Center), S. Carreiro (Mount Sinai Medical Center), L. Ferguson (Tampa General Hospital), A. Plagge (Tallahassee Memorial Regional Medical Center), P. Rogers (Florida Hospital), J. Schurig (Bayfront Medical Center), J. Sigler (University Medical Center).

MODERN LANGUAGES & LINGUISTICS

PHILOSOPHY
Chairperson: J. A. Bell; Professors: J. F. Anton, J. A. Bell, J. A. Gould, L. L. McAlistier, B. Silver, W. H. Pratt, C. Weatherford, K. Wuiedu; Distinguished Research Professors: K. S. Shadrer-Frechette, S. P. Turner; Associate Professors: R. N. Taylor, J.B. Waugh; Courtesy Associate Professor: M. Myerson; Courtesy Professor: D. J. Fasching.

PHYSICS

POLITICAL SCIENCE

PSYCHOLOGY

PUBLIC ADMINISTRATION

REHABILITATION COUNSELING
Chairperson: J. D. Rasch; Professors: J. F. Dickman, W. G. Emener, J. D. Rasch; Associate Professors: M. J. Landsman, C. M. Pinkard, T. J. Wright; Lecturer: L. Burnam.

RELIGIOUS STUDIES

SOCIAL WORK
Director: B. L. Yeagidis; Professors: T. J. Northcutt, Jr., B. L. Yeagidis; Associate Professors: J. A. Giordano, T. U. Hancock, W. S. Hutchison, Jr., P. R. Newcomb, A. A. Smith, P. L. Smith, R. J. Wilk; Assistant Professors: P. A. d'Oronzio, C. S. Roberts, A. L. Strozler; Courtesy Faculty: Associate Professor: M. L. Coulter.

SOCIOLOGY
slavery, indenture, and migration; contemporary ethnic heterogeneity; economic problems of Third World microstates; development of a modern social and political consciousness. Religious diversity, music, the graphic arts, and the literature of the contemporary Caribbean will also be surveyed. (Also offered under Anthropology.)

CPO 4204 GOVERNMENT AND POLITICS OF AFRICA (3)
Designed to provide the information and analytical tools necessary to interpret current Sub-Saharan African politics. Survey of political organization in traditional African societies; politics under colonial rule; the struggle for independence, and post-independence politics.

CPO 4206 GOVERNMENT AND POLITICS OF EAST, CENTRAL AND SOUTHERN AFRICA (3)
In depth study of political developments, ideologies and modernization in East, Central and Southern Africa including race relations and white minority rule in Southern Africa.

HUM 2420 ARTS AND MUSIC OF THE AFRICAN PEOPLE (3)
An examination of the historicar and current music of Sub-Saharan Africa; their meaning and impact on the arts and music of the Western World.

INR 4254 AFRICA IN WORLD POLITICS (3)
Study of international relations in the new Africa including the relations of the new states with major world powers and their role in the United Nations.

PHI 4074 AFRICAN PHILOSOPHY (3)
A descriptive and analytical study of African philosophical thought, featuring reflective comparisons of African and Western categories of thought. (Also offered under Philosophy.)

PHM 4120 MAJOR BLACK THINKERS (3)
Survey of major themes of black leaders and participants in the global liberation.

PUP 3313 BLACKS IN THE AMERICAN POLITICAL PROCESS (3)
An examination of the political experience of Blacks in the American political process including their political socialization, and struggle to become effective participants in the American political process.

AMERICAN STUDIES

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

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

AMS 3001 AMERICA AT THE TURN OF THE CENTURY -6A (4)
Integration of major aspects of American life between 1880 and World War I.

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 3202 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. Topic varies. 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.

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.
AMSI 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.

AMSI 3371 MATERIAL CULTURE AND AMERICAN SOCIETY - 3  
By means of slides, lectures and student projects, examines connections between artifacts and American cultural attitudes from 17th century to present. Topics include: architecture, furniture, gravestones, toys, automobiles, and the material subcultures of women, African-Americans and communal societies.

AMSI 3372 RACISM IN AMERICAN SOCIETY - 3  
An introduction into the causes and effects of racism in American history, literature, art, the media, and folklore. Related concepts of ethnocentrism and class conflict will also be studied. (Offered under Africana Studies.)

AMSI 3390 SELECTED TOPICS IN AMERICAN STUDIES - 1-4  
Offerings include Cultural Darwinism in America, America Through Foreign Eyes, and The Female Hero in American Culture.

AMSI 4152 FILM IN AMERICAN CULTURE - 3  
Surveys the contributions to American Culture of major films, studios, directors, stars, theaters, and controversies from the perspectives of genres and styles, critical methodologies and theories. Variable topics such as series on a region, director, performer, subject, or period of time.

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

AMSI 4930 SELECTED TOPICS IN AMERICAN STUDIES - 1-4  
PR: Senior in American Studies or CI. Offerings include American Painting: its social implications, Technology in Twentieth Century America, American Environmental Problems, Popular Culture in America, American Military Experience, and Labor in America.

AMSI 4935 SENIOR SEMINAR IN AMERICAN STUDIES - 4  
PR: Senior in American Studies or CI.

AMSI 4936 SENIOR SEMINAR IN AMERICAN STUDIES - 4  
PR: Senior in American Studies.

PGY 3300 PHOTOGRAPHY IN AMERICAN CULTURE - 3  
A survey of photography as an art and a craft in America since the mid-nineteenth century. Attention devoted to technological innovations, leading personalities, major movements, and memorable icons. Open to majors and non-majors.

ANCIENT STUDIES  
See Religious Studies

ANTHROPOLOGY

ANT 1001 THE HUMAN ANIMAL - 2  
This course examines the anthropological evidence relevant to controversial questions concerning human origins, social practices, human and animal communication, and ancient societies. Not for major credit.

ANT 2000 INTRODUCTION TO ANTHROPOLOGY - 3  
The crosscultural study of the human species in biological and social perspectives. Surveys the four major branches of anthropology: physical anthropology (human biology), archaeology (the analysis of prehistoric and historic remains of human cultures), anthropological linguistics (the analysis of language in its cultural context), and cultural anthropology (the crosscultural study of peoples living in the world today, be they in tribal, peasant, or urban societies).

ANT 2005 THE ANTHROPOLOGICAL PERSPECTIVE - 3  
For non-anthropology majors only. Presents the basic concepts of anthropology as they are relevant to contemporary life. Aims at enabling the student to understand the anthropologist's crosscultural view of the human species as adapting through biocultural means to life on this planet. May not be counted for credit toward an anthropology major.

ANT 3100 ARCHAEOLOGY - 3  
PR: ANT 2000 or CI. The crosscultural study of humankind from its beginnings up to and including the historic period through the recovery, description, and analysis of the remains of past cultures and societies.

ANT 3410 CULTURAL ANTHROPOLOGY - 3  
PR: ANT 2000 or CI. Discussion of major methods of and orientations to the crosscultural study of the world's peoples. Representative case studies are used to demonstrate variations in human adaptations and to encourage an appreciation of diverse lifestyles and lifeways.

ANT 3511 BIOLOGICAL ANTHROPOLOGY - 3  
PR: ANT 2000 or CI. Non-human primates, the fossil record and the biology of races are surveyed in order to understand the human animal as a product of biocultural phenomena. Anatomy, genetics, culture and evolution are emphasized.

ANT 3743 ANTHROPOLOGICAL LINGUISTICS - 3  
PR: ANT 2000 or CI. The comparative study of language in its cultural context, especially emphasizing the role of language in the cultural interpretation of physical and social reality.

ANT 4008 CULTURE AND HUMAN EVOLUTION  
PR: ANT 3511 or equivalent. Survey of the many ways in which behavior and technology influenced the biology of prehistoric and modern human populations. Phenomena such as mating practices, urbanization, and dietary habits are related to humans as animals. Behavior genetics and sociobiology are covered.

ANT 4034 THEORIES OF CULTURE - 3  
PR: Senior standing or major in anthropology or equivalent. The major concepts that form the anthropological view of humanity are viewed in historical perspective. Basic ideas of the western philosophical tradition are analyzed from the Greeks to the 19th century when they became incorporated into the new discipline of anthropology. 20th century anthropological developments on these themes are considered.

ANT 4124 ARCHAEOLOGICAL FIELD METHODS - 4  
PR: ANT 3100 or CI. Normally offered as part of a Summer Field Session. Students also take Florida Archaeology and Laboratory Methods in Archaeology. Emphasis on appropriate methods of archaeological excavation and recovery and recording of data.

ANT 4162 NORTH AMERICAN ARCHAEOLOGY - 6A  
PR: ANT 3100 or CI. An examination of the evidence regarding the human settlement of North America from its beginnings through the development of aboriginal culture to the period of European conquest. Emphasis on the comparative study of material culture at selected sites from all time periods. No field work is involved.

ANT 4158 FLORIDA ARCHAEOLOGY - 4  
PR: ANT 3100 or CI. The content of prehistoric cultures such as Paleolidian, Weeden Island, and Safety Harbor are reviewed and examined in terms of their temporal and spatial relationships to each other and the Eastern U.S. Normally offered as part of a Summer Field Session. Students also take Field Methods in Archaeology and Laboratory Methods in Archaeology.

ANT 4162 SOUTH AMERICAN ARCHAEOLOGY - 3  
PR: ANT 3100 or CI. Describes and analyzes the sequence of cultural development in prehistoric South America. Cultures such as those in the Incas, Chavin, Moche, Wari, Chimú are included. Emphasis on the environmental setting and the relationship between cultural ecology and the growth of civilization.

ANT 4163 MESOAMERICAN ARCHAEOLOGY - 3  
PR: ANT 3100 or CI. The chronological sequence from its beginnings through Protohistoric development is described and analyzed. Cultures such as the Maya, Aztec, Mixtec, Zapotec, Olmec, and Toltec are included, with emphasis on the environmental setting and the relationship between cultural ecology and the growth of civilization.

ANT 4172 HISTORICAL ARCHAEOLOGY - 6A  
PR: ANT 3100 or CI. A survey and analysis of archaeology focused on the historic period. Laboratory research with data recorded from historic sites and introduction to classwork.

ANT 4180 LABORATORY METHODS IN ARCHAEOLOGY - 4  
PR: ANT 3100 or CI. Normally offered as part of a Summer Field Session. Students also enroll in Florida Archaeology and Field Methods in Archaeology. Data recovered in excavation are cleaned, catalogued, identified, and analyzed in the laboratory.

ANT 4181 MUSEUM METHODS IN ARCHAEOLOGY - 4  
PR: ANT 3100 and CI. Design, preparation and installation of exhibits in the Department of Anthropology Teaching Exhibit
ANT 4226 ANTHROPOLOGY OF ART - 6A
PR: ANT 3410 or CI. An examination of the relationship between the visual arts (sculpture, painting, masks, carving, etc.) and culture in non-Western societies. Emphasis on formal symbolic and functional comparative analysis of specific art styles based on crosscultural materials. Consideration of diffusion and change of art forms, commercial and ethnic arts, and role of the artist.

ANT 4231 FOLKLORE - 6A
PR: ANT 3410 or CI. Focuses on crosscultural methods and techniques regarding the collection, classification, and analysis of such materials as myths, jokes, games, and items of material culture. African (or African-derived), Oceanic and Native American societies are surveyed.

ANT 4241 MAGIC AND RELIGION - 6A
PR: ANT 3410 or CI. The crosscultural study of the social and cultural aspects of religion. Religious activities in traditional and modern contexts will be discussed. Social behavior, religious practitioners, and symbols of belief will be considered in light of their impact on the social, political or economic aspects of peoples' lives.

ANT 4302 SEX ROLES IN CROSS-CULTURAL PERSPECTIVE
PR: ANT 3410 or CI. Focuses on various theories, models and beliefs about male-female behavior and interactions in human cultures throughout history and in various societies in the world today. (Also offered under Women's Studies.)

ANT 4305 VISUAL ANTHROPOLOGY
PR: ANT 3410 or CI. The use of photographic techniques for the crosscultural recording and analysis of human activities. The study of ethnographic photography as both art and science, and the production of an anthropological study that expresses the goal of "visual literacy." Review and evaluation of the uses of visual techniques and the evidence they provide to the social scientist.

ANT 4310 NORTH AMERICAN INDIANS
PR: ANT 3410 or CI. An examination of the evidence for the origin and antiquity of human beings in North America and of patterns of regional development until the period of contact with European colonists. Emphasis on varieties of ecological adaptation, social, political and religious systems, enculturation and worldview, folklore and visual art.

ANT 4316 THE UNITED STATES
PR: ANT 3410 or CI. Special concerns include the American community, change and continuity in American values and lifestyles, and the historical background and recent manifestations of human problems in the United States.

ANT 4324 MEXICO AND CENTRAL AMERICA - 6A
PR: ANT 3410 or CI. Focuses on the history, contemporary values and interpersonal relationships, and patterns of rural and urban life in Mesoamerica. Guatemala and Mexico are emphasized.

ANT 4340 THE CARIBBEAN-6A
PR: ANT 3410 or CI. Main themes include: the depopulation of the aboriginal population and the resettlement of the area via slavery, indenture, and migration; contemporary ethnic heterogeneity; economic problems of Third World microstates; development of a modern social and political consciousness. Religious diversity, music, the graphic arts, and the literature of the contemporary Caribbean will also be surveyed. (Also offered under Africana Studies.

ANT 4367 THE MIDDLE EAST
PR: ANT 3410 or CI. Reviews the environmental and cultural ecology of the Middle East and analyzes how they have influenced the variety of subcultures of the region. The rise and fall of the "little tradition" of the enduring folk cultures will be analyzed. Contemporary culture change will be analyzed in a crosscultural perspective.

ANT 4432 THE INDIVIDUAL AND CULTURE - 6A
PR: ANT 3410 or CI. The relationship between the individual and society is studied crossculturally. Main themes include childrearing practices, psychosomatic illness and curing. Discussion of theories and models of personality development with special reference to their applicability to the emerging field of crosscultural mental health planning.
articulate their current images of anthropology.  

**ANT 5970 HONORS THESIS**  
PR: Admission to the honors program, completion of the honors seminar and CI. The student under the supervision of a faculty member will formalize, conduct, analyze, and report in writing a research project in anthropology. (S/U only.)  

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<tr>
<td>ANT 5970</td>
<td>HONORS THESIS</td>
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**ANT 5994 DIRECTED READING**  
PR: CI. Individual guidance in concentrated reading on a selected topic in anthropology. Contract required prior to registration.  

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<tr>
<td>ANT 5994</td>
<td>DIRECTED READING</td>
<td>(1-4)</td>
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**AST 5915 INDIVIDUAL RESEARCH**  
PR: CI. Individual guidance in a selected research project. Contract required prior to registration.  

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<tr>
<td>AST 5915</td>
<td>INDIVIDUAL RESEARCH</td>
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**AST 5937 SEMINAR IN ANTHROPOLOGY**  
PR: Graduate standing. Topics to be chosen by students and instructor.  

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<td>AST 5937</td>
<td>SEMINAR IN ANTHROPOLOGY</td>
<td>(2-4)</td>
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**MUS 4054 FOLK MUSIC**  
PR: ANT 3410 or CI. Examines ethnic musics in America, emphasizing the functions of folk music in rural and urban settings. Materials drawn cross-culturally are studied in both religious and secular forms. When feasible, classwork is supplemented by live performances. Technical knowledge of music is not required.  

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<tr>
<td>MUS 4054</td>
<td>FOLK MUSIC</td>
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### ASTRONOMY

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

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<tr>
<td>AST 2005</td>
<td>ASTRONOMY OF THE SOLAR SYSTEM</td>
<td>(4)</td>
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</table>

**AST 2006 STELLAR ASTRONOMY AND COSMOLOGY**  
An introduction to Astrophysics and the structure of the universe. No Physics background assumed. Topics covered include properties of light, stellar coordinates, timekeeping, eclipses, formation and dynamics of the physical properties of stars, formation, structure and evolution of stars, normal and peculiar galaxies, cosmology. This course is complementary to but independent of AST 2005. Either may be taken before the other or taken by itself.  

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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>AST 2006</td>
<td>STELLAR ASTRONOMY AND COSMOLOGY</td>
<td>(4)</td>
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**AST 3032 ILLUSTRATIVE ASTRONOMY**  
Constellations, use of small telescopes, etc., apparent motions of celestial objects, comets and meteors, seasons, weather. Current events in the space program. Planetarium and open sky demonstrations. Lec.-lab.  

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<tr>
<td>AST 3032</td>
<td>ILLUSTRATIVE ASTRONOMY</td>
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**AST 3033 CONTEMPORARY THINKING IN ASTRONOMY**  
PR: Junior or Senior Standing or CI. Seminar designed to assist the layman, with no scientific background, in comprehending contemporary developments in Astronomy. Necessary background material is provided by the instructor and a text. Topics covered in recent years include the space program, pulsars, x-ray astronomy, black holes, extra-terrestrial life, interacting galaxies, cosmology.  

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<td>AST 3033</td>
<td>CONTEMPORARY THINKING IN ASTRONOMY</td>
<td>(3)</td>
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**AST 304C ARCHAEAOSTRONOMY**  
PR: Jr. or Sr. Standing or CI. Astronomical concepts and observational techniques used by prehistoric/ancient peoples for detecting change of seasons, constructing calendars, predicting eclipses, etc. Particular attention is given to Stonehenge, and to works of N.A. Indians, the Maya and Aztecs, and the Egyptians. Lec.-lab.  

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<tr>
<td>AST 304C</td>
<td>ARCHAEAOSTRONOMY</td>
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**AST 3652 NAVIGATION**  
PR: Some knowledge of geometry, algebra, and trigonometry. Timekeeping, use of sextant, constellations, celestial navigation with minimum equipment, spherical astronomy.  

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<tr>
<td>AST 3652</td>
<td>NAVIGATION</td>
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**AST 3906 SELECTED TOPICS IN ASTRONOMY**  
PR: CI. Course content will depend upon the interest of the faculty member and student demand. May be repeated up to 8 credit hours.  

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<th>Course Code</th>
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<tr>
<td>AST 3906</td>
<td>SELECTED TOPICS IN ASTRONOMY</td>
<td>(1-4)</td>
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**AST 5506 INTRODUCTION TO CELESTIAL MECHANICS**  
PR: MAC 3313 or MAC 3283 and some knowledge of differential equations, or CI. The two-body problem, introduction to Hamiltonian systems and canonical variables, equilibrium solutions and stability, elements of perturbation theory.  

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<tr>
<td>AST 5506</td>
<td>INTRODUCTION TO CELESTIAL MECHANICS</td>
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### Biology

**BSC 1005 PRINCIPLES OF BIOLOGY FOR NON-MAJORS**  
Lectures and demonstrations of selected biological principles, usually taught by television. For non-majors only. No credit for Biology Majors.  

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<tr>
<td>BSC 1005</td>
<td>PRINCIPLES OF BIOLOGY FOR NON-MAJORS</td>
<td>(3)</td>
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</table>

**BSC 2011C BIOLOGY II - CELLULAR PROCESSES**  
PR: CHM 2041. An analysis of biological systems at the cellular and subcellular levels: cell structure and function, respiration, photosynthesis, mitosis and meiosis, genetics, gene expression, and evolution. The course is designed for majors and has a laboratory associated with the lecture.  

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<tr>
<td>BSC 2011C</td>
<td>BIOLOGY II - CELLULAR PROCESSES</td>
<td>(4)</td>
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**BSC 2025 FOOD AND DRUGS**  
The application of basic biological principles to relevant problems and topics in nutrition and drugs through the consideration of scientific and popular literature. For non-majors. May be taken by majors for free elective credit.  

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<th>Course Code</th>
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<tr>
<td>BSC 2025</td>
<td>FOOD AND DRUGS</td>
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**BSC 2035 SEX AND TODAY'S BIOLOGY**  
The application of basic biological principles to female and male sexual behavior and reproduction; current social problems are treated from a biological perspective. May be taken by majors for free credit.  

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<tr>
<td>BSC 2035</td>
<td>SEX AND TODAY'S BIOLOGY</td>
<td>(3)</td>
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**BSC 2050 ENVIRONMENT**  
The application of basic scientific principles to global environmental problems; how human activities impact the environment. May be taken by biology majors for elective credit.  

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<tr>
<td>BSC 2050</td>
<td>ENVIRONMENT</td>
<td>(3)</td>
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**BSC 2070 BIOLOGY OF AGING**  
An introduction to the basic biology of aging. Emphasis will be placed on understanding basic principles of biology relevant to time and the aging process which begins at birth.  

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<tr>
<td>BSC 2070</td>
<td>BIOLOGY OF AGING</td>
<td>(3)</td>
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**BSC 2230 SAVE THE PLANET: ENVIRONMENTAL SCIENCES**  
An introduction to environmental sciences using mass communications and independent study. Emphasis will be placed on understanding basic principles of ecology relevant to problems and topics of the earth's environment.  

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<tr>
<td>BSC 2230</td>
<td>SAVE THE PLANET: ENVIRONMENTAL SCIENCES</td>
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**BSC 2932 SELECTED TOPICS IN BIOLOGY**  
May be repeated.  

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<tr>
<td>BSC 2932</td>
<td>SELECTED TOPICS IN BIOLOGY</td>
<td>(1-4)</td>
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**BSC 2933 TOPICS IN HUMAN BIOLOGY**  
Lectures, individual reading, movies, classroom discussions, and evaluation of selected biological topics, reflecting biological principles. (For non-majors.)  

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<tr>
<td>BSC 2933</td>
<td>TOPICS IN HUMAN BIOLOGY</td>
<td>(1-4)</td>
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</table>

**BSC 2936 MARINE BIOLOGY**  
PR: 1 year major's Biology. A survey of the marine environment, the types of organisms found inhabiting a variety of marine habitats, and the adaptations of the organisms to those habitats. Emphasis is placed on shallow water Florida environments.  

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<tr>
<td>BSC 2936</td>
<td>MARINE BIOLOGY</td>
<td>(3)</td>
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**BSC 2938 INDEPENDENT STUDY**  
PR: CI and CC. Specialized independent study determined by the student's needs and interests. The written contract required by
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<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PCB 4043C</td>
<td>PRINCIPLES OF ECYLOGY</td>
<td>PR: 1 year major's Biology. An introduction to the basic principles and concepts of ecology at the ecosystem, community, and population level. Lec.-dis.</td>
<td>3</td>
</tr>
<tr>
<td>PCB 4064C</td>
<td>EXPERIMENTAL GENETICS</td>
<td>PR: PCB 3063. Experimental analysis of genetic systems. Lec.-lab.</td>
<td>3</td>
</tr>
<tr>
<td>PCB 4253C</td>
<td>DEVELOPMENTAL BIOLOGY</td>
<td>PR: PCB 3023C. Topics in modern developmental biology to be covered in lecture and through readings so as to gain a working knowledge and understanding of the cellular and molecular mechanisms of cell differentiation in both plants and animals. Lec.-lab.</td>
<td>3</td>
</tr>
<tr>
<td>PCB 4674</td>
<td>ORGANIC EVOLUTION</td>
<td>PR: PCB 3063. An introduction to modern evolutionary theory. Lecture on population genetics, adaptations, speciation theory, phylogeny, human evolution and related areas. Lec.-lab.</td>
<td>3</td>
</tr>
<tr>
<td>PCB 5115C</td>
<td>CYTOGENETICS</td>
<td>PR: PCB 3023C. Survey of the structure and function of cytoplasmic and nuclear components of plant and animal cells. Lec.-lab.</td>
<td>3</td>
</tr>
<tr>
<td>PCB 5235C</td>
<td>PRINCIPLES OF IMMUNOLOGY</td>
<td>PR: PCB 3023C or PCB 3030C. Course will emphasize the biology of microorganisms involved in the vertebrate immune response. It will present the homeostatic, defense, and detrimental aspects of the immune system in terms of basic cellular and molecular mechanisms. Techniques will be described to familiarize the student with the types of immunological tools available to the cellular and molecular biologist. Lec.-lab.</td>
<td>3</td>
</tr>
<tr>
<td>PCB 5415C</td>
<td>BEHAVIORAL ECOLOGY</td>
<td>PR: ZOO 3203C, PCB 4043C. An emphasis on the evolutionary mechanisms that influence an organism's behavioral responses to environmental events. The theoretical framework is presented and analyzed. Intended for majors. Lec.-lab.</td>
<td>3</td>
</tr>
<tr>
<td>PCB 5525C</td>
<td>MOLECULAR GENETICS</td>
<td>PR: PCB 3063. Detailed examination of DNA, RNA and protein synthesis; the effects of mutations on proteins, cellular control; selected aspects of viral, bacterial, and fungal genetics. Lec.-lab.</td>
<td>3</td>
</tr>
<tr>
<td>PCB 5615C</td>
<td>EVOLUTIONARY GENETICS</td>
<td>PR: PCB 3063. Examination of factors such as mutation, migration, natural selection, and genetic drift which modify the genetic structure of populations. Lec.-lab.</td>
<td>3</td>
</tr>
<tr>
<td>PCB 5835C</td>
<td>NEUROPHYSIOLOGY</td>
<td>PR: PCB 3023C. A comparative analysis of the physiochemical basis and evolution of nervous systems and sensory mechanisms. Lec.-lab.</td>
<td>3</td>
</tr>
<tr>
<td>PCB 5843C</td>
<td>PRINCIPLES OF NEUROSCIENCE</td>
<td>PR: PCB 4743C. Study of the mammalian brain's structure and function, with an emphasis on the neuroanatomy, neuropharmacology, and neurophysiology of the human brain.</td>
<td>3</td>
</tr>
<tr>
<td>PCB 5863C</td>
<td>PRINCIPLES OF NEUROSCIENCE</td>
<td>PR: PCB 4743C. Study of the mammalian brain's structure and function, with an emphasis on the neuroanatomy, neuropharmacology, and neurophysiology of the human brain.</td>
<td>3</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Department</td>
<td>Credits</td>
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<tr>
<td>MCB 4502C</td>
<td>VIROLOGY</td>
<td>Physiology</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>MCB 3030C. The biology of viruses associated with plants, animals, and bacteria will be considered; the nature of viruses, mechanisms of viral pathogenesis, and interactions with host cells.</td>
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<tr>
<td>MCB 4652</td>
<td>APPLIED AND ENVIRONMENTAL MICROBIOLOGY</td>
<td>Physiology</td>
<td>(4)</td>
</tr>
<tr>
<td>PR:</td>
<td>MCB 3030C. A study of the applications of microbiology in industry, agriculture, the biomedical sciences, engineering, and environmental science.</td>
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<tr>
<td>MCB 4934</td>
<td>SEMINAR IN MICROBIOLOGY</td>
<td>Physiology</td>
<td>(1)</td>
</tr>
<tr>
<td>PR:</td>
<td>Senior or advanced junior standing. May be repeated. (S/U only.)</td>
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<tr>
<td>MCB 5212</td>
<td>PUBLIC HEALTH AND PATHOGENIC MICROBIOLOGY</td>
<td>Physiology</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>MCB 3030C. A comprehensive survey of pathogenic microorganisms responsible for disease in man and other animals and the impact of these infectious agents on the public health. These pathogens will be studied with respect to their morphology, cultivation, mechanisms of pathogenicity, laboratory diagnosis, and epidemiology.</td>
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<tr>
<td>MCB 5606</td>
<td>SYMBOLOGY</td>
<td>Physiology</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>A course in microbiology, cell biology or biochemistry and advanced standing. Consideration of mutualistic and parasitic symbioses between microbes and various animal, plant and microbic hosts from cellular, biochemical, evolutionary and ecological perspectives.</td>
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<tr>
<td>MCB 5821</td>
<td>VERTEBRATE ANATOMY</td>
<td>Biology</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>PCB 3032C. A modern biological survey of the medically important fungi (yeasts and molds) important to microbiologists and environmental scientists.</td>
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<tr>
<td>Zoology</td>
<td>BSC 3092 HUMAN ANATOMY AND PHYSIOLOGY</td>
<td>Biology</td>
<td>(5)</td>
</tr>
<tr>
<td>PR:</td>
<td>BSC 2010C and BSC 2011C. Lectures and discussions on the structure and function of the human body. For non-majors. May be taken by majors for free elective by S/U only.</td>
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<tr>
<td>ENY 4004</td>
<td>INTRODUCTION TO ENTOLOGY</td>
<td>Zoology</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>PCB 3032C. An introduction to general aspects of insect morphology, development, and classification. The identification of local forms will be emphasized. Lec.-lab.</td>
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<tr>
<td>ENY 5505</td>
<td>AQUATIC ENTOLOGY</td>
<td>Zoology</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>ENY 4004. Taxonomy, development, and ecology of aquatic insects with emphasis on local forms. Lec.-lab.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCB</td>
<td>5726 ANIMAL PHYSIOLOGY</td>
<td>Biology</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>PCB 3023C. Advanced presentation of mechanisms employed by animals to interact with their environment and to maintain their organization. Lec.-lab.</td>
<td></td>
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<tr>
<td>PCB</td>
<td>5306C LIMNOLOGY</td>
<td>Biology</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>CI. An introduction to the physical, chemical, and biological nature of freshwater environments. Lec.-lab.</td>
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<tr>
<td>ZOO 3203C</td>
<td>INVERTEBRATE ZOOLOGY</td>
<td>Zoology</td>
<td>(4)</td>
</tr>
<tr>
<td>PR:</td>
<td>BSC 2010C, BSC 2011C. An introduction to the major invertebrate groups, with emphasis on local forms. Field work will be required. Lec.-lab.</td>
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<tr>
<td>ZOO 3713C</td>
<td>COMPARATIVE VERTEBRATE ANATOMY</td>
<td>Zoology</td>
<td>(4)</td>
</tr>
<tr>
<td>PR:</td>
<td>BSC 2010C, BSC 2011C. Anatomy of selected vertebrate types emphasizing evolutionary trends.</td>
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<tr>
<td>ZOO 4503</td>
<td>ANIMAL SOCIAL BEHAVIOR</td>
<td>Zoology</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>BSC 2010C, BSC 2011C, or senior standing. An introduction to comparative animal behavior (Ethology), with emphasis on communication, social use of space, and behavioral evolution.</td>
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<tr>
<td>ZOO 4603</td>
<td>ANIMAL EMBRYOLOGY</td>
<td>Zoology</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>PCB 3023C. Structural and functional events involved in differentiation and morphogenesis. Lec.-lab.</td>
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<tr>
<td>ZOO 4753C</td>
<td>HISTOLOGY</td>
<td>Zoology</td>
<td>(4)</td>
</tr>
<tr>
<td>ZOO 5235C</td>
<td>PARASITOLOGY</td>
<td>Zoology</td>
<td>(4)</td>
</tr>
<tr>
<td>PR:</td>
<td>ZOO 3203C. Fundamentals of animal parasitology and parasitism, the biology of selected animal parasites, including those of major importance to man. Lec.-lab.</td>
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<tr>
<td>ZOO 5425C</td>
<td>HERPETOLOGY</td>
<td>Zoology</td>
<td>(4)</td>
</tr>
<tr>
<td>PR:</td>
<td>ZOO 3713C, CI. Major aspects of amphibian and reptilian biology emphasizing fossil history, evolutionary morphology, sensory physiology, life history and reproductive behavior. Lec.-lab. Field trip.</td>
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<tr>
<td>ZOO 5456C</td>
<td>ICHTHYOLOGY</td>
<td>Zoology</td>
<td>(4)</td>
</tr>
<tr>
<td>PR:</td>
<td>Senior or GS; BSC 2010C, BSC 2011C, ZOO 3713C, PCB 4674 is suggested. Evolution, systemsatics, structure, behavior, physi­ology, and ecology of fishes.</td>
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<tr>
<td>ZOO 5475C</td>
<td>ORNITHOLOGY</td>
<td>Zoology</td>
<td>(4)</td>
</tr>
<tr>
<td>PR:</td>
<td>Senior standing in Biology. The biology of birds. Field trips emphasize local avifauna. Lec.-lab.</td>
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<tr>
<td>ZOO 5555C</td>
<td>MARINE ANIMAL ECOLOGY</td>
<td>Zoology</td>
<td>(4)</td>
</tr>
<tr>
<td>PR:</td>
<td>PCB 4043C and ZOO 3203C. Investigation of energy flow, biogeochemical cycles, and community structure in marine environments. Lec.-lab.</td>
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<tr>
<td>BSC 2011C</td>
<td>INTRODUCTION TO GENERAL, ORGANIC AND BIOCHEMISTRY I</td>
<td>Biology</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>First half of a two-semester sequence. Fundamental concepts of general, organic, and biological chemistry. No credit for science majors.</td>
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<tr>
<td>CHM 2021</td>
<td>CHEMISTRY FOR TODAY</td>
<td>Chemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>A one semester terminal course designed to survey some of the important concepts and technologies of modern chemistry. No credit for science majors.</td>
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<tr>
<td>CHM 2030</td>
<td>INTRODUCTION TO GENERAL, ORGANIC AND BIOCHEMISTRY II</td>
<td>Chemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>CHM 2030. Second half of general, biological and organic chemistry. No credit for science majors.</td>
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<tr>
<td>CHM 2031</td>
<td>INTRODUCTION TO GENERAL, ORGANIC AND BIOCHEMISTRY II</td>
<td>Chemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>CHM 230. High school chemistry and high school mathematics including algebra are recommended. An introduction to the principles and applications of modern chemistry including the properties of matter, structural view of matter and reactions, quantitative relations in chemical reactions, technological aspects and societal impact.</td>
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<tr>
<td>CHM 2041</td>
<td>GENERAL CHEMISTRY I</td>
<td>Chemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>One year of high school chemistry and two years of high school mathematics including algebra; or, completion of CHM 2040 with grade of C or better. Principles and applications of chemistry including properties of substances and reactions, thermodynamics, atomic-molecular structure and bonding, periodic properties of elements and compounds.</td>
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<tr>
<td>CHM 2045L</td>
<td>GENERAL CHEMISTRY I LABORATORY</td>
<td>Chemistry</td>
<td>(1)</td>
</tr>
<tr>
<td>CR:</td>
<td>CHM 2041. Laboratory portion of General Chemistry I. Introduction to laboratory techniques; study of properties of elements and compounds; synthesis and analysis of natural and commercial materials.</td>
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<tr>
<td>CHM 2046</td>
<td>GENERAL CHEMISTRY II</td>
<td>Chemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>CHM 2041 or CHM 2045L or equivalent. Continuation of General Chemistry. Lec.-dis.</td>
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<tr>
<td>CHM 2046L</td>
<td>GENERAL CHEMISTRY II LABORATORY</td>
<td>Chemistry</td>
<td>(1)</td>
</tr>
<tr>
<td>PR:</td>
<td>CHM 2045L. Laboratory portion of General Chemistry II. Continuation of chemistry laboratory.</td>
<td></td>
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<tr>
<td>CHM 2932</td>
<td>SELECTED TOPICS IN CHEMISTRY</td>
<td>Chemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>PR:</td>
<td>Topics of interest to students relating to chemistry and other sciences.</td>
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</tbody>
</table>
COLLEGE OF ARTS AND SCIENCES

UNIVERSITY OF SOUTH FLORIDA - 1993/94 UNDERGRADUATE CATALOG

CHM 3100 ELEMENTARY ANALYTICAL CHEMISTRY (4)

CHM 3102 ORGANIC CHEMISTRY I (4)
PR: CHM 2046 or equivalent. Fundamental organic chemistry principles. Structure, nomenclature, properties, preparation, reactions of hydrocarbons, alkyl halides, alcohols, phenols, ethers, sulfur analogs and other compounds. A one-semester course.

CHM 3110 ORGANIC CHEMISTRY I (4)
PR: CHM 2046, CHM 2046L. Fundamental principles of organic chemistry. Lecture.

CHM 3210L ORGANIC CHEMISTRY LABORATORY I (1)

CHM 3211 ORGANIC CHEMISTRY II (4)
PR: CHM 3210 or equivalent. Continuation of organic chemistry. Lecture.

CHM 3211L ORGANIC CHEMISTRY LABORATORY II (1)

CHM 3300 ELEMENTARY PHYSICAL CHEMISTRY I (3)
PR: CHM 2046, CHM 2046L, MAC 3281 or MAC 3311, PHY 3054, PHY 3054L. Introduction to thermodynamics. Properties of solutions with emphasis on biological applications.

CHM 3301 ELEMENTARY PHYSICAL CHEMISTRY II (3)
PR: CHM 3400. Reaction kinetics, enzyme kinetics, macromolecular systems, radiochemistry, molecular spectroscopy, and chemical bonding.

CHM 3402L ELEMENTARY PHYSICAL CHEMISTRY LABORATORY (1)
PR: CHM 3120C. CR: CHM 3400 and/or CHM 3401. A physical chemistry laboratory with emphasis on modern techniques and instruments.

CHM 3510C INTERMEDIATE ORGANIC CHEMISTRY I (4)
PR: CHM 2046, CHM 2046L. Fundamental principles of inorganic chemistry including atomic structure, bonding theories and structural consequences, transition metal chemistry and illustrative laboratory work. Lec.-lab.

CHM 3520L USE OF THE CHEMICAL LITERATURE (1)
Discussions and assignments using abstracts, bibliographies, indices, encyclopedias, journals, patent files, electronic databases, and other information sources to obtain chemical and technical material and including written and oral presentations. Career information and opportunities also discussed.

CHM 3530C HISTORICAL PERSPECTIVES IN CHEMISTRY (3)
PR: One year of college chemistry or senior standing and CI. A study in depth of the historical and philosophical aspects of outstanding chemical discoveries and theories. Lec.-dis.

CHM 4130C METHODS OF CHEMICAL INVESTIGATION I (4)
PR: CHM 3120C, CHM 3211, CHM 3211L, CHM 4060, CHM 4410. Theory and applications of instrumental methods in chemical research, chemical synthesis and analysis; electrochemical and calorimetric techniques, separation methods, spectroscopy, statistical analysis of data, computer data handling, and individual projects.

CHM 4131C METHODS OF CHEMICAL INVESTIGATION II (4)
PR: CHM 4130C. Continuation of CHM 4130C.

CHM 4300 BIOMOLECULES (3)
PR: CHM 3211. Nature, structure, elucidation, synthesis and (in selected cases) organic chemical mechanisms of biochemical involvement of the major classes of organic compounds found in living systems. Lec.

CHM 4410 PHYSICAL CHEMISTRY I (3)
PR: CHM 3120C and MAC 3282 or MAC 3312, and PHY 3054 or PHY3049. Thermodynamics, the states of matter, solutions. Lec.

CHM 4411 PHYSICAL CHEMISTRY II (3)
PR: CHM 3120C, and MAC 3282 or MAC 3312, and PHY 3054 or PHY 3049. Introduction to quantum mechanics and molecular spectroscopy. Lec.

CHM 4412 PHYSICAL CHEMISTRY III (3)

CHM 4610 ADVANCED INORGANIC CHEMISTRY (3)
PR: CHM 3610 and CHM 4410 or CI. An advanced descriptive and theoretical treatment of inorganic compounds. Lec.

CHM 4905 INDEPENDENT STUDY (1-3)
PR: CI. Specialized independent study determined by the student's needs and interests. The written contract required by the College of Arts and Sciences specifies the regulations governing independent study. May be repeated. (S/U only)

CHM 4920 SELECTED TOPICS IN CHEMISTRY (1-3)
PR: CI. The course content will depend on the interest of faculty members and student demand.

CHM 4970 UNDERGRADUATE RESEARCH (1-3)
PR: CI. (S/U only)

CHM 5225 INTERMEDIATE ORGANIC CHEMISTRY (3)
PR: CHM 3211, CHM 3211L, or equivalent. This course will extend organic chemistry beyond the undergraduate level and will emphasize concepts of stereochemistry and reaction mechanisms.

CHM 5225 INTERMEDIATE ORGANIC CHEMISTRY II (3)
PR: CHM 5225 or CI. An introduction to synthetic organic chemistry for graduate students and advanced undergraduates. Lec. Semester II.

CHM 5425 APPLICATIONS IN PHYSICAL CHEMISTRY (3)
PR: CHM 4411 or CI. Applications of chemical theory to chemical systems.

CHM 5450 POLYMERIC CHEMISTRY (3)
PR: Either CHM 3211, CHM 3211L, and CHM 3400 or CHM 4410 or graduate standing. Fundamentals of polymer synthesis, structure, properties, and characterization.

CHM 5621 PRINCIPLES OF INORGANIC CHEMISTRY (3)
PR: CHM 4411 or CI. Chemical forces, reactivity, periodicity, and literature in inorganic chemistry: basic core course. Lec.

CHM 5931 SPECIAL TOPICS IN CHEMISTRY (1-3)
PR: CI. The following courses are representative of those that are taught under this title: Natural Products, Stereochemistry, Reactive Intermediates, Photochemistry, Instrumental Electronics, Advanced Laboratory Techniques, Heterocyclic Chemistry, etc.

CHS 4100C NUCLEAR CHEMISTRY (3)
PR: CHM 3210C. Theory and application of natural and induced radioactivity. Emphasis on the production, properties, measurement, and uses of radioactive tracers. Lec-lab.

CHS 4200 INDUSTRIAL CHEMISTRY (3)
PR: CHM 3211 or CI. The general composition and properties of products in the petroleum, rubber, plastics, fiber, and detergent industries will be examined. Quality requirements imposed by product end use and new product development will be emphasized.

CHS 4300 FUNDAMENTALS OF CLINICAL CHEMISTRY (3)
PR: BCH 3033. Theoretical and practical aspects of the analysis of various body fluids, with emphasis on the medical significance. Clinical chemistry majors must take CHS 4301L concurrently. Lec.

CHS 4301L CLINICAL LABORATORY (2)
PR: BCH 3033 and CI. CHM 320C. Laboratory experience in some of the most important clinical determinations. CHS 4300 must be taken concurrently. Lec-lab.

CHS 4302 CLINICAL CHEMISTRY PRACTICE (2-12)
PR: CI. Laboratory practice in clinical chemistry laboratories in the Tampa Bay area. (S/U only)

CHS 4310C INSTRUMENTAL ANALYSIS (4)
PR: CHM 4412 or CI. Theory and practice of instrumental methods of chemical analysis. Lec-lab.

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.

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

Courses in Translation

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

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.

CLT 3012 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.

CLT 3370 CLASSICAL MYTHOLOGY
Study of Greek and Roman myths embodied in classical literature and of their impact on Western civilization. All readings are in English.

Greek
GRE 1121 BEGINNING CLASSICAL GREEK I
An introductory course in classical Greek grammar with appropriate readings.
PR: GRE 1120 or equivalent. An introductory course in classical Greek grammar with appropriate readings.

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

GRW 4905 DIRECTED READING
Departmental approval required.

GRW 5905 DIRECTED READING
Departmental approval required.

GRW 5930 SELECTED TOPICS
Study of an author, movement or theme. May be repeated up to 12 credit hours.

Latin
LAT 1120 BEGINNING LATIN I
An introductory course in Latin grammar with appropriate readings.

LAT 1121 BEGINNING LATIN II
PR: LAT 1120 or equivalent. An introductory course in Latin grammar with appropriate readings.

LWN 4363 MARTIAL
PR: LAT 1121 or equivalent. Readings in the Epigrams of Martial. Study of the tradition, techniques, and artistry of the Roman epi­gram. Available to majors and non-majors.

LWN 4381 LIVY
PR: Basic knowledge of Latin. Readings in the ideas and artistry of this Roman historian.

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

LWN 4510 SENENCA 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.

LWN 4634 CATULLUS
PR: Basic knowledge of Latin. Readings in Catullus. Study of techniques and tradition in Roman lyric poetry.

LWN 4644 CICERO
PR: Basic knowledge of Latin. Readings in the epistles of Cicero.

LWN 4654 HORACE
PR: Basic knowledge of Latin. Readings in the Odes and Epodes of Horace; study of the Ode’s tradition.

LWN 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.

LWN 4670 OVID
PR: LAT 1121 or equivalent. Readings in Ovid’s Metamorphoses. Study of Ovid’s technique, style, and artistry.

LWN 4900 DIRECTED READING
Departmental approval required.

LWN 4930 SELECTED TOPICS
Study of an author, movement, or theme.

LWN 5900 DIRECTED READING
Departmental approval required. (S/U only.)

LWN 5934 SELECTED TOPICS
Study of an author, movement or theme. May be repeated up to 12 credit hours.

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.

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.

COM 5530 INTRODUCTION TO COMMUNICATION THEORY IN ORGANIZATIONS
PR: majors, COM 3003 or CI; non-majors, COM 3122 or COM 3110 or CI. A survey of communication concepts which impact upon organizational effectiveness.

COM 5610 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.

COM 5612 INTERVIEW COMMUNICATION LAB
Interview laboratory. Open in public discourse. Students must take this course in conjunction with the mass lecture COM 5612. Open to majors and non-majors. Not repeatable.

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

COM 5620 TOPICS IN COMMUNICATION STUDIES
Topical issues in communication. Rpt. up to 12 hours as topics vary.

ORI 3000 INTRODUCTION TO COMMUNICATION AS PERFORMANCE
Designed to develop proficiency in the understanding and oral communication of literary and other written materials.

ORI 3950 COMMUNICATION AS PERFORMANCE LAB
PR: ORI 3000 or CI. The study, rehearsal, and performance of literature for Readers Theatre and Chamber Theatre productions. May be repeated (maximum total four hours).

ORI 4120 PERFORMANCE OF POETIC TOPICS
PR: ORI 3000 or CI. Critical appreciation of lyric and narrative poetry and communication of that appreciation to audience. Study of poetic theory and prosodic techniques.

ORI 4140 PERFORMANCE OF DRAMA
PR: ORI 3000 or CI. Critical appreciation and oral interpretation of special textual materials which are inherently dramatic in nature and poetry, narrative prose, drama, biography, and history.

ORI 4310 GROUP PERFORMANCE OF LITERATURE
PR: ORI 3000 or CI. Designed to introduce the student to and give experience in various forms of group approaches to per­formance.

ORI 5930 TOPICS IN PERFORMANCE GENRES
Variable topics course. Rpt. up to 12 hours as topics change.

SPC 2023 FUNDAMENTALS OF HUMAN COMMUNICATION
The nature and basic principles of human communication; emphasis on improving speaking and listening skills common to all forms of oral communication through a variety of experience in public discourse.

SPC 2050 SPEECH IMPROVEMENT AND PHONETICS
Designed to improve vocal quality and expressiveness, articulation, and pronunciation, and to give instruction and practice in using the International Phonetic Alphabet for speech improvement.

SPC 3059 SPEECH IMPROVEMENT AND PHONETICS II
PR: SPC 2050 or CI. A continuation of SPC 2050. Emphasis will
be upon applying listening and transcription skills to the improve-
ment of vocal quality and effective expressions.

**SPC 3210 COMMUNICATION THEORY** (3)
PR: Junior standing or Cl. The study of source, message, and
receiver variables in human communication; communication set-
tings; descriptive and predictive models of communication; com-
munication as a process.

**SPC 3230 RHETORICAL THEORY** (3)
This course surveys the foundations and historical evolution of
major concepts, issues, theorists, and approaches to the study of
rhetoric from ancient to contemporary theorists.

**SPC 3301 INTERPERSONAL COMMUNICATION** (3)
PR: Junior standing or Cl. A study of interpersonal communica-
tion in informally structured settings with emphasis on the
understanding, description, and analysis of human communica-
tions.

**SPC 3410 PARLIAMENTARY PROCEDURES** (2)
Principles of parliamentary procedure and practice in conducting
and participating in meetings governed by parliamentary rules.

**SPC 3441 GROUP COMMUNICATION** (3)
PR: Junior standing or Cl. A survey of theory and research in
group communication. Group discussions and communication ex-
cercises to increase awareness of the dynamics of human
communication in small group settings.

**SPC 3513 ARGUMENTATION AND DEBATE** (3)
PR: Junior standing or Cl. Study of principles of argumentation
as applied in oral discourse, analysis of evidence and modes of
reasoning. Preparation and debate preparation and delivery.

**SPC 3601 ADVANCED PUBLIC SPEAKING** (3)
PR: SPC 2023 or Cl. Study and application of communication
strategies in speaking extemporaneously and from manuscript.
The course includes study of selected public addresses as aids to
increased understanding of speaking skills.

**SPC 3633 RHETORIC OF CONFRONTATION** (3)
PR: Junior standing or Cl. The study of rhetorical strategies and
tactics of agitation and control in confrontation situations.

**SPC 3653 POPULAR FORMS OF PUBLIC COMMUNICATION** (3)
PR: Junior standing or Cl. Analysis of public communication with
emphasis on various presentation forms.

**SPC 3681 RHETORICAL ANALYSIS** (3)
This course introduces students to fundamentals of message
analysis. Student examines persuasive strategies and language
in oral and written discourse (not repeatable).

**SPC 4632 RHETORIC OF SOCIAL CHANGE** (3)
PR: SPC 3230 or SPC 3681. This course examines how social
change is symbolized and motivated in the rhetorics of insti-
tutions, campaigns, social movements and individuals.

**SPC 4680 HISTORY AND CRITICISM OF PUBLIC ADDRESS** (3)
PR: SPC 3601 or Cl. The principles of rhetorical criticism applied
to a selected great speeches of Western Civilization.

**SPC 4693 RHETORICAL ANALYSIS OF MASS MEDIA** (3)
PR: SPC 3230 or SPC 3681. Open to non-majors with Cl. An
introduction to the criticism of media forms and effects. Con-
temporary perspectives of the aesthetic and persuasive dimen-
sions of mass media are examined. Students will engage in
critical study of media artifacts.

**SPC 4900 DIRECTED READINGS** (1-3)
PR: Senior standing, minimum GPA 2.5, 15 hours of core
requirements and 9 elective hours completed, and Cl. Maximum 6
hours.

**SPC 4905 UNDERGRADUATE RESEARCH** (1-3)
PR: Senior standing, minimum GPA 2.5, 15 hours of core
requirements and 9 elective hours completed, and Cl. Minimum 6
hours. Individual investigations with faculty supervision.

**SPC 4930 SELECTED TOPICS** (1-3)
PR: Senior standing, minimum GPA 2.5, 15 hours of core
requirements and 9 elective hours completed, and Cl. May be repeated.

**SPC 4989 UNDERGRADUATE COMMUNICATION** (1-3)
PR: Senior standing, minimum GPA 3.0, 15 hours of core
requirements and 9 elective hours completed, and Cl. Communication
major. Exploration of selected topics of current significance to the
several areas of communication through group discussion and
research.

**SPC 5230 TOPICS IN RHETORICAL ANALYSIS** (3)
Introduces a variety of critical perspectives applied to rhetoric in
specialized contexts. Topics vary depending upon interest of
students and faculty. Rpt. up to 12 hours.

**SPC 5912 RESEARCH** (1-4)
PR: Senior or graduate standing and Cl.

**SPC 5983 TOPICS IN DISCOURSE** (3)
Variable topics course. Rpt. up to 12 hours.

**COMMUNICATION SCIENCES AND DISORDERS**

**SPA 3002 INTRODUCTION TO DISORDERS OF SPEECH AND LANGUAGE** (3)
PR: Junior standing and Cl. The scope of speech-language
pathology as a profession and a field of study. An introduction
to speech and language disorders, etiologies, major treatment
approaches, and research findings.

**SPA 3112 INTRODUCTION TO SPEECH SCIENCE** (3)
PR: SPA 3101 and SPA 3112. Concentrated study of the
acoustic, physiological and perceptual aspects of sound as
related to normal and pathological speech communication.
Introduction to instrumentation and measurement procedures.

**SPA 3030 INTRODUCTION TO HEARING SCIENCE** (3)
PR: Junior standing and Cl. Introduction to the field of hearing
including: physics of sound, auditory anatomy and physiology,
and psychophysics of hearing.

**SPA 3101 ANATOMY AND PHYSIOLOGY OF THE SPEECH AND HEARING MECHANISM** (3)
PR: Junior standing and Cl. The anatomical and anatomical
basis of communication disorders. Comparisons of normal and
pathological organic structures and their functional dynamics.

**SPA 3112 APPLIED PHONETICS IN COMMUNICATION DISORDERS** (3)
PR: Junior standing and Cl. Introduction to phonetic analysis of
normal and disordered speech, including extensive training in
transcription using the International Phonetic Alphabet.

**SPA 3310 INTRODUCTION TO DISORDERS OF HEARING** (3)
PR: SPA 3300 and SPA 3101. The etiology, pathology, and
management of disorders of the outer ear, middle ear, inner ear,
retrocochlear, and central auditory systems.

**SPA 3380 BASIC AMERICAN SIGN LANGUAGE** (3)
PR: Cl. Introduction to American Sign Language (ASL) as used in
the deaf community. General discussion of ASL structure and in-
troduction to various manual communication systems and phi-
losophies. Emphasis on building a basic vocabulary. One hour
laboratory course (SPA 3380L) to be taken concurrently. Open
to all majors.

**SPA 3381 BASIC AMERICAN SIGN LANGUAGE LABORATORY** (1)
PR: Cl. A laboratory designed to offer additional practice in sign
language by means of videotapes. Concurrent enrollment at
each level of sign language is required. There are no prerequi-
sites. May be repeated up to 2 credit hours.

**SPA 4000 COMMUNICATION DISORDERS IN THE PUBLIC SCHOOLS** (3)
PR: Cl. An examination of the speech, language and hearing
problems affecting school-age children and the classroom
teacher's role in the detection, prevention and amelioration of
communication disorders. (Non-major course only).

**SPA 4050 INTRODUCTION TO THE CLINICAL PROCESS** (3)
PR: SPA 4930 (Lang. Dev.) and SPA 3310. Observation and
participation in speech-language pathology and audiology prac-
ticum in the University clinical laboratory.

**SPA 4201 PHONETICAL DEVELOPMENT AND DISORDERS** (3)
PR: SPA 3011. An examination of normal and deviant articula-
tory acquisition and behavior. Presentation of major theoretical
orientations and the therapeutic principles based upon them.

**SPA 4210 VOCAL DISORDERS** (3)
PR: SPA 3011 and SPA 3310. A comprehensive study of the
medical and physical aspects of voice disorders. Primary empha-
sis is on therapeutic management.

**SPA 4222 FLUENCY DISORDERS** (3)
PR: SPA 4201. A comprehensive study of disfluent speech
behavior. Differential diagnosis, principles of therapeutic inter-
vention, procedures for children and adults will be studied.
Major theories and models of the development and origin of
stuttering are also presented.

**SPA 4331 FUNDAMENTALS OF FINGERSPELLING** (2)
PR: Cl. A concentrated study of technique in fingerspelling emph-
asizing clarity and rhythm in expression as well as receptive
understanding.
SPA 4332 STRUCTURE OF SIGN LANGUAGE  
PR: CI. Semiotic and linguistic consideration of American Sign Language (ASL). Includes aspects of phonology, syntax, semantics, and discourse in ASL.

SPA 4335 SIGN LANGUAGE CODES  
PR: CI. A review of the sign systems (SEE I, SEE II, L.O.V.E., and Signed English) used to code messages through the use of sign. The student will have the opportunity to practice one of the sign systems.

SPA 4363 NATURE AND NEEDS OF HEARING IMPAIRED  
A study of the effects of auditory disorders upon the organization and expression of behavioral patterns as they relate to motivation, adjustment and personality.

SPA 4382 INTERMEDIATE AMERICAN SIGN LANGUAGE  
PR: SPA 3380, SPA 3380L, and CI. A continuation of the basic course which expands the student’s signing skills and introduces American Sign Language (ASL) idioms. Provides a greater opportunity for skill development in ASL structure and idiomatic usage. One hour laboratory course (SPA 4382L) to be taken concurrently.

SPA 4382L INTERMEDIATE AMERICAN SIGN LANGUAGE LABORATORY  
PR: SPA 3380 and SPA 3380L. A laboratory designed to offer additional practice in sign language by means of videotapes. Concurrent enrollment in SPA 4382 of sign language. May be repeated up to 2 credit hours.

SPA 4383 ADVANCED AMERICAN SIGN LANGUAGE  
PR: SPA 4382, SPA 4382L, and CI. A continuation of the study of American Sign Language (ASL) at the advanced skill level. Added emphasis on idioms, body language, and facial expression as an integral part of ASL. A one hour laboratory course (SPA 4383L) to be taken concurrently. Open to all majors.

SPA 4383L ADVANCED AMERICAN SIGN LANGUAGE LABORATORY  
PR: CI. An advanced laboratory course designed to offer students added practice with the material presented in the ASL coursework through video and audio tapes. To be taken concurrently with Advanced American Sign Language (SPA 4383).

SPA 4562 COUNSELING OF COMMUNICATIVELY HANDICAPPED AND FAMILY  
PR: SPA 3011 and SPA 3310. Discussion of role of counseling in the treatment of communication disorders. Based on exploration of theoretical constructs, this course demonstrates applications of therapeutic methodologies to reduction of communication handicaps.

SPA 4930 SELECTED TOPICS  
PR: CI. Intensive study of topics in Speech-Language Pathology, Audiology, and/or Aural Rehabilitation conducted under the supervision of a faculty member. May be repeated for a total of 9 credit hours.

SPA 5132 AUDIOLOGY INSTRUMENTATION  
PR: CI. Calibration, usage and specific applications of specialized instruments available in dealing with the identification and measurement of hearing disorders.

SPA 5150 ADVANCED SPEECH SCIENCE  
PR: SPA 3011 or equivalent. Advanced study of the acoustics, production and perception of normal and disordered speech.

SPA 5150L SPEECH SCIENCE INSTRUMENTATION  
PR: CI or SPA 3011 or equivalent. This course offers experience in the use of speech recording, monitoring and analyzing equipment for the evaluation of normal and disordered voice and speech characteristics.

SPA 5303 ADVANCED HEARING SCIENCE  
The study of the physiological acoustics of the auditory periphery; the neuroanatomy and electrophysiology of the central auditory system; and psychoacoustic principles as they relate to clinical audiologic measurement paradigms.

SPA 5312 PERIPHERAL AND CENTRAL AUDITORY TESTING  
PR: CI. The study of behavioral and electrophysiologic clinical tests designed to assess the function of the peripheral and the central auditory system. Tests which incorporate non-speech stimuli and those which utilize speech stimuli will be included.

SPA 5328 AURAL REHABILITATION  
This course is designed to provide information about and strategies for aural rehabilitation intervention with hearing-impaired adults. Topics covered include: speechreading, auditory training, hearing and assistive listening devices.

SPA 5335 COMMUNICATION DISORDERS: LANGUAGE  
PR: CI. Examination of research and clinical literature presenting major theoretical orientations pertaining to the etiology, evaluation, and treatment of those factors that hinder or interrupt normal language acquisition or function.

SPA 5408 LANGUAGE LEARNING IN THE SCHOOL-AGE YEARS  
PR: CI. Participation in speech-language pathology and audiology practicum in the University Communication Disorders Center and selected field settings.

SPA 5506 SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY PRACTICUM  
PR: CI. Participation in speech-language pathology and audiology practicum in the University Communication Disorders Center and selected field settings.

SPA 5552 DIAGNOSTIC PRINCIPLES AND PRACTICES  
PR: CI. The evaluation, interpretation and reporting of diagnostic tools and their results in the assessment of speech and language disorders.

CRIMINOLOGY

CCI 3003 CRIME AND JUSTICE IN AMERICA  
This course is a non-technical survey of the nature of crime in the United States and the ways in which our society seeks to deal with criminal offenses and the victims of crime. May be taken by both majors and non-majors for credit, subject to departmental approval for declared majors.

CCI 3020 SURVEY OF THE CRIMINAL JUSTICE SYSTEM  
PR: PSY 2012, SOC 2000, or equivalent, or CI. An introduction to the structure and operation of law enforcement, prosecution, correction, and courts. Also includes brief coverage of major reported crimes.

CCI 3210 SUBSTANTIVE CRIMINAL LAW  
PR: CCI 3020, POS 2041 or CI. Examines the historical basis of the American criminal law system, the substantive elements of the crime, and court procedures.

CCI 3540 THEORIES OF CRIMINAL BEHAVIOR  
PR: CCI 3020. Provides a basic understanding of the complex factors related to crime, with concentration on principal theoretical approaches to the explanation of crime.

CCI 3621 PATTERNS OF CRIMINAL BEHAVIOR  
Reviews the nature and extent of the crime problem. The course will concentrate on major patterns of offender behavior including crimes against the person, property crimes, violent crimes, economic/white collar offense, syndicated (organized) crimes, consensual crimes, female crime, political crime, and will examine criminal career data.

CCI 3701 RESEARCH METHODS IN CRIMINAL JUSTICE I  
PR: Junior standing and CCI 3020 or CI. Introduces the student to some of the fundamentals of knowledge-generating processes in criminal justice.

CCI 4110 AMERICAN LAW ENFORCEMENT SYSTEMS  
Provides a comprehensive examination of the American law enforcement system at the federal, state, and local levels and an assessment of career opportunities within the community.

CCI 4230 CRIMINAL RIGHTS AND PROCEDURES  
Emphasizes the Constitutional issues and rules that are applied and enforced by the courts while processing criminal cases.

CCI 4331 ALTERNATIVES TO INCARCERATION  
PR: Junior standing plus CCI 4360 or CI. This course explores a variety of alternatives to imprisoning the offender, including probation, parole, diversion, and other community-based intervention and treatment approaches.

CCI 4340 INTERVENTION TECHNIQUES AND STRATEGIES  
PR: Senior standing or CI. Introduces the student to theories and methods underlying treatment modalities currently employed in corrections.

CCI 4360 AMERICAN CORRECTIONAL SYSTEMS  
PR: Junior standing plus CCI 3610 or CI. Analysis of the different treatment philosophies and techniques currently in use in the field, with special attention to experimental and demonstration programs.

CCI 4450 CRIMINAL JUSTICE ADMINISTRATION  
This course is designed to provide an in-depth examination of both the practical and theoretical aspects of the administration
of criminal justice agencies. The major focus will be on law enforcement and correctional agencies.

**CCI 4501 JUVENILE JUSTICE SYSTEM**
PR: CCI 3020. Provides coverage of the juvenile and family courts, their clientele, and the complex of human services agencies and facilities that contribute to efforts at juvenile correctional intervention.

**CCI 4604 ABNORMAL BEHAVIOR AND CRIMINALITY**
PR: CCI 3610, or CI. A systematic introduction to the relationship between mental illness and criminality, with focus on psychiatric labeling of deviant behavior and its implications for the handling of the criminal offender.

**CCI 4700 STATISTICAL RESEARCH METHODS IN CRIMINAL JUSTICE II**
PR: Junior standing or CI. Beginning with the scientific method, the tools commonly used to analyze criminal justice data will be emphasized. Recommended for students who intend to continue their education beyond the B.A. Required of students attending the MA program in CCI at USF. This course may not be taken for credit if the student has already successfully completed STA 3122 or GEB 3121.

**CCI 4900 DIRECTED READINGS**
PR: CI. This course is specifically designed to enable advanced students the opportunity to do in-depth independent work in the area of criminal justice. Each student will be under the close supervision of a faculty member of the program. No more than five hours of CCI 4900, CCI 4910 or any combination of the two will be accepted toward the minimum number of hours required for the major.

**CCI 4910 DIRECTED RESEARCH**
PR: CI. This course is designed to provide students with a research experience in which they will work closely with faculty on the development and implementation of research projects in the area of criminal justice. No more than five hours of CCI 4910, CCI 4900 or any combination of the two will be accepted toward the minimum number of hours of the major.

**CCI 4934 SEMINAR IN CRIMINOLOGY**
PR: Senior standing and CI. These variable topic seminars are used for the in-depth study and discussion of the relationships among culture, gender, ethics, age, society, and criminal behavior. Such examinations may include the options the criminal justice system (do or does not) have to deal with these interactions, and the ethics and efficacy of the system's response.

**CCI 4940 INTERNSHIP FOR CRIMINAL JUSTICE MAJORS**
PR: Senior standing. The internship will consist of placement with one or more of the agencies comprising the criminal justice system. This course will enable the student to gain meaningful field experience related to their future careers. The three-hour block of credit will require a minimum of ten hours of work per week within the host agencies in addition to any written work or reading assignments. See requirements for the B.A. degree in Criminology for the number of hours required. (S/U only.)

**CIT 4100 CRIMINAL INVESTIGATION**
Covers the major components of criminal investigation, with special attention to the scientific aspects of criminal investigation and the management of major cases.

**CIT 4820 PRIVATE SECURITY SYSTEMS**
PR: Junior standing plus CCI 4110 or CI. Examines some of the principal methods and techniques currently used to reduce or prevent losses due to theft and casualty.

**ENGLISH**

**AML 3031 AMERICAN LITERATURE FROM THE BEGINNINGS TO 1860**
A study of representative works from the period of early settlement through American Romanticism, with emphasis on such writers as Cooper, Irving, Bryant, Hawthorne, Emerson, Melville, Thoreau, and Poe, among others.

**AML 3032 AMERICAN LITERATURE FROM 1860 TO 1912**
A study of representative works of selected American Realists and early Naturalists, among them Whitman, Dickinson, Twain, James, Howells, Crane, Dreiser, Wharton, Robinson, Dunbar, and Johnson.

**AML 3051 AMERICAN LITERATURE FROM 1912-1945**
A study of poetry, drama, and fiction by such writers as Pound, Stein, Fitzgerald, Hemingway, Faulkner, Porter, Toomer, Cummings, Williams, Anderson, Steinbeck, Wright, West, Stevens, Henry Miller, and others.

**AML 3271 BLACK LITERATURE**
A study of black American literature from the nineteenth 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. (Also offered in African Studies.)

**AML 4101 NINETEENTH-CENTURY AMERICAN NOVEL**
A study of the American novel from its beginnings through 1900, including such novelists as Coover, Hawthorne, Melville, James, Twain, Crane, and Dreiser, among others.

**AML 4123 TWENTIETH-CENTURY AMERICAN NOVEL**
A study of major trends and influences in American prose fiction from 1900 to the present. Included by such writers as Hemingway, London, Wharton, Fitzgerald, Faulkner, West, Mailer, Bellow, Ellison, Donleavy, Updike, Vonnegut, and others.

**AML 4261 LITERATURE OF THE SOUTH**
A study of the major writers of the "Southern Renaissance," including writers such as Faulkner, Wolfe, Caldwell, Hellman, McCullers, O'Connor, Warren, Styron, Tate, Davidson, and Dylan.

**AML 4300 SELECTED AMERICAN AUTHORS**
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.

**CRW 2100 NARRATION AND DESCRIPTION -6A**
A study of narrative and descriptive techniques in prose. By making the student sensitive to language usage, it is designed to bridge the gap between expository writing and imaginative writing.

**CRW 3111 FORM AND TECHNIQUE OF FICTION -6A**
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.

**CRW 3112 FICTION I -6A**
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.

**CRW 3121 FICTION II -6A**
PR: CRW 3111, CRW 3112. A fiction workshop which provides individual and peer guidance and direction for student writing and which also attempts to encourage the development of critical skills.

**CRW 3311 FORM AND TECHNIQUE OF POETRY**
An examination of the techniques employed in fixed forms from the couplet through the sonnet to such various forms as the pantoum, ballad, villanelle, sestina, etc. Principles in the narrative, dramatic, and lyric modes are also explored.

**CRW 3312 POETRY I**
PR: CRW 3311. An introduction to poetry writing utilizing writing exercises employing poetic language and devices; the exercises progress to the writing of both rhymed and unrhymed metrical and non-metrical forms.

**CRW 3321 POETRY II**
PR: CRW 3311, CRW 3312. A poetry workshop which provides individual and peer guidance and direction for the student's writing and which also attempts to encourage the development of critical skills.

**CRW 4120 FICTION III**
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.

CRW 4366 HONORS SEMINAR II (3)
PR: Admission to English Honors Program (should be taken concurrently with ENG 4936). 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 4936 HONORS SEMINAR II (3)
PR: Admission to English Honors Program (should be taken concurrently with ENG 4936). 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 4935 HONORS THESIS SEMINAR (3)
PR: ENG 4935 and ENG 4936. For students writing honors theses. Class time will be devoted to exchange of research findings, instructor and student critique of method, structure, and rhetoric of individual projects.

ENG 5067 HISTORY OF THE ENGLISH LANGUAGE (3)
PR: ENG 4935 and 4936. For students writing honors theses. Class time will be devoted to exchange of research findings, instructor and student critique of method, structure, and rhetoric of individual projects.

ENG 3114 MODERN DRAMA (3)
A study of the works of major literary critics from Aristotle to the present, with emphasis on their meaning, their implied world view, and their significance for our own time and literature.

ENG 4006 HISTORY OF THE ENGLISH LANGUAGE (3)
The evolution of language from Anglo-Saxon through Middle English to Modern English. Development of the English lexicon. Changes in the pronunciation, syntactic, and semantic systems; discussion of the forms which influenced them.

ENG 4906 INDIVIDUAL RESEARCH (1-4)
Directed study in special projects. Special permission of chairperson required.

ENG 4907 DIRECTED READING (3)
Readings in special topics.

ENG 4935 HONORS SEMINAR I (3)
PR: ENG 4935 HONORS SEMINAR I (should be taken concurrently with ENG 4936). A study of two or three major American or British writers. Students will be expected to participate in class discussion, make formal presentations, and complete a major research project.

ENL 3332 LATE SHAKESPEARE (3)
A study of 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 3333 LATE SHAKESPEARE (3)
A study of 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 4122 BRITISH NOVEL THROUGH HARDY (3)
A study of early and later British novels such as Fielding, Smollett, Sterne, Austen, Scott, Dickens, Eliot, and Hardy, among others.

ENL 4303 SELECTED AUTHORS (3)
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 (3)
An intensive study of The Canterbury Tales and major critical concerns.

ENL 4322 BRITISH NOVEL: CONRAD TO THE PRESENT (3)
A critical study of British fiction from 1900 to the present, with emphasis on such writers as Conrad, Lawrence, Joyce, Woolf, Huxley, Orwell, Burgess, Murdoch, Golding, and others.

ENL 4371 HISTORY OF BRITISH DRAMA TO 1912 (3)
A study of the history of British Drama from its liturgic 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, and others.

ENL 5333 LATE SHAKESPEARE (3)
A study of 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 5334 LATE SHAKESPEARE (3)
A study of 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 5335 LATE SHAKESPEARE (3)
A study of 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 5336 LATE SHAKESPEARE (3)
A study of 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 5337 LATE SHAKESPEARE (3)
A study of 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 5338 LATE SHAKESPEARE (3)
A study of 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.
LIN 2670 ENGLISH GRAMMAR AND USAGE (3)
A course in the basics of traditional English grammar designed as a complement to our composition and creative writing courses, as a review for those students who will take preprofessional exams, and as a basic course for students interested in improving their knowledge of English.

LIN 4671 TRADITIONAL ENGLISH GRAMMAR (3)
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.

LIT 2010 INTRODUCTION TO AMERICAN ENGLISH (3)
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.

LIT 2010 INTRODUCTION TO FICTION -6A (3)
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 (3)
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 -6A (3)
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 -6A (3)
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 2091 CURRENT NOVELS (3)
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 (3)
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 3010 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.

LIT 3000 INTRODUCTION TO LITERATURE -6A (3)
The nature and significance of literature in its various forms: fiction, drama, poetry; emphasis on the techniques of reading literature for informed enjoyment. Will not be counted toward the English major.

LIT 3022 MODERN SHORT NOVEL (3)
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 (3)
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 -6A (3)
A study in English of the great works of Western Literature from its beginnings through the Renaissance, including the Bible, Homer, Sophocles, Plato, Euripides, Virgil, Cicero, Dante, Petrarch, Machiavelli, and Rabelais, among others.

LIT 3102 LITERATURE OF THE WESTERN WORLD SINCE THE RENAISSANCE -6A (3)
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, Side, Sartre, and Camus, among others.

LIT 3103 MODERN NOVEL (3)
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.
WST 4263 THIRD WORLD WOMEN WRITERS (3)
Introduces the literature of women from various anglophone countries in Africa, the Caribbean, and South Asia; some U.S. writers will be included to represent a third world diasporic consciousness. (May also be taken for credit in Women's Studies.)

GEOGRAPHY

GEA 3000 WORLD REGIONAL GEOGRAPHY (4)
Comparative and analytical analysis of representative regions of the world with emphasis on cultural, political, economic, and physical diversity.

GEA 3009 GENERAL GEOGRAPHY (4)
Selected topics in regional and topical geography offered as survey courses. Open to all students.

GEA 3194 REGIONAL GEOGRAPHY (4)
Variable title course to systematically study and compare special regions identified by the instructor.

GEA 3202 GEOGRAPHY OF ANGLO-AMERICA (4)

GEA 3300 GEOGRAPHY OF MIDDLE AMERICA (4)

GEA 3360 GEOGRAPHY OF GULF OF MEXICO (4)

GEA 3400 GEOGRAPHY OF LATIN AMERICA (4)

GEA 3500 GEOGRAPHY OF EUROPE (4)

GEA 3554 GEOGRAPHY OF THE USSR (4)

GEA 3600 GEOGRAPHY OF AFRICA (4)

GEA 3703 GEOGRAPHY OF ASIA (4)

GEA 1930 GEOGRAPHY OF CURRENT EVENTS (4)
Application of basic geographic principles of the analysis of contemporary events in various parts of the world.

GEO 2041C MAP INTERPRETATION (4)
Analysis and synthesis of various types of maps and map projections.

GEO 2371 INTRODUCTION TO EARTH SYSTEMS SCIENCE (4)
The application of basic earth system science analysis to environmental problems. Review of impact of human activities on the surface of the earth and local and global scales. For non-majors only.

GEO 3013 INTRODUCTION TO PHYSICAL GEOGRAPHY (4)
Principles and concepts of the discipline; maps, earth-sun relationships, weather, climate, soil, water, and landforms.

GEO 3402 HUMAN GEOGRAPHY (4)
Systematic treatment of man's activities on earth; population, settlement, agriculture, industry, trade, transportation, and political aspects are among those considered.

GEO 3602 URBAN GEOGRAPHY (4)
PR: GEO 3402 or Cl. Spatial analysis of urban areas; growth, location, spacing, and size. Development, site, situation, internal structure, and hinterland are considered.

GEO 3901 ELEMENTS OF GEOGRAPHY (1)
Independent study; various topics in physical and cultural geography. (S/U only.)

GEO 3951C SELECTED TOPICS (4)

GEO 4100C CARTOGRAPHY (4)
PR: GEO 3013. Map compilation and graphic presentation.

GEO 4114C GEOGRAPHIC TECHNIQUES AND METHODOLOGY (4)
PR: 12 credit hours in Geography or Cl. Selected topics in various geographic techniques and methodologies and their application.

GEO 4124C AIR PHOTO INTERPRETATION (4)
PR: GEO 3013 or Cl. Detection, identification, and analysis of objects on the earth's surface. Techniques other than photographic are also considered.

GEO 4154C QUANTITATIVE METHODS (4)
PR: 12 credit hours in Geography or Cl. Statistical analysis in geographic research.

GEO 4200C PHYSICAL GEOGRAPHY (4)
PR: GEO 3013 or Cl. Intensive study of a topic selected from physical geography.

GEO 4220C PROCESS GEOMORPHOLOGY (4)
PR: GEO 3013 or GY 2010 or Cl. Origin, evolution, and distribution of the landforms of North America.

GEO 4280C HYDROLOGY (4)
PR: GEO 3013 or Cl. Hydrologic cycle, precipitation, evapotranspiration, streamflow, and probability analysis.

GEO 4340 HUMAN RESPONSE TO NATURAL HAZARD (4)
The impact of hurricanes, tornadoes, earthquakes, sinkholes, tidal waves, fire, freezes, and droughts on people; attempts to overcome or avoid these hazards.

GEO 4372 GLOBAL CONSERVATION (4)
The distribution, exploitation, and conservation of physical and human resources, ecology.

GEO 4380W RESOURCE MANAGEMENT (4)
A general overview of the hydrologic cycle and the impact of cultural degradation of its various components. May also include a survey of regional water problems.

GEO 4421 CULTURAL GEOGRAPHY (4)
PR: GEO 3402 or Cl. Selected topics in the geography of culture, from prehistoric times to the present.

GEO 4440 POPULATION GEOGRAPHY (4)
PR: GEO 3402 or Cl. An analysis of contemporary patterns in world and regional distributions of people and geographical factors underlying these patterns and their changes.

GEO 4460 HISTORICAL GEOGRAPHY (4)
PR: GEO 3402 or Cl. Survey of evolving landscapes through time; analysis is made by means of systematic and regional methods in order to reconstruct the changing culture-landscape equation.

GEO 4470 POLITICAL GEOGRAPHY (4)
PR: GEO 3402 or Cl. The geographic factors underlying political decisions and influencing their outcome; the geographic consequences of these decisions; geopolitics.

GEO 4502 ECONOMIC GEOGRAPHY (4)
PR: GEO 3402 or Cl. The spatial organization of economic production, consumption, and exchange systems.

GEO 4540 ADVANCED URBAN GEOGRAPHY (4)
PR: GEO 3402, GEO 3602, or Cl. Intensive examination of issues such as economic restructuring and inner-city decline, ghetto formation, gentrification, transportation, and policy-making.

GEO 4700 TRANSPORTATION GEOGRAPHY (4)
PR: GEO 3402 or Cl. Interrelationships between freight and passenger transportation and land use, in terms of site, traffic generation, and circulation.

GEO 4900 DIRECTED READING (1-4)
PR: 20 hours in geography and Cl prior to registration. May be repeated.

GEO 4910 INDIVIDUAL RESEARCH (1-4)
PR: 20 hours in geography and Cl prior to registration. May be repeated.

GEO 5058 GEOGRAPHIC LITERATURE AND HISTORY (3)
PR: Senior or graduate standing in geography, or Cl. The origins and development of the discipline as revealed through an examination of the principal written sources. Special attention paid to leading personalities and modern periodicals.

MET 4002 CLIMATOLOGY (4)
PR: GEO 3013 or Cl. An introductory course which includes an examination of climatic classification systems, problem climates, and the application of climate to selected topics such as world vegetation patterns and land use, agriculture, housing and health.

MET 4010C METEOROLOGY (4)
PR: GEO 3013 or Cl. The earth's atmosphere and its processes; weather forecasting and analysis; instrumentation.

URP 4052 URBAN AND REGIONAL PLANNING (4)
The geographic foundations of the modern city, metropolitan development, and the trend toward megalopolis. Examined are the political problems of conflicting jurisdictions at the local, county, state, national, and international levels.

GEOGRAPHY

GLY 2010 DYNAMIC EARTH: INTRODUCTION TO PHYSICAL GEOLOGY (3)
Study of minerals, rocks, and processes of the earth's crust. Introduction to origin and classification of earth's materials and landforms.

GLY 2010 DYNAMIC EARTH LABORATORY (1)
PR: GY 2010 or concurrent registration. Laboratory study of earth materials, landforms, geologic structures, topographic and geologic maps. Leclab-field trips. Required for Geology majors: open to non-majors.

GLY 2030 ENVIRONMENTAL GEOLOGY (3)
A first course in geology emphasizing environmental aspects of the earth's crust, including earthquakes, depletion of the earth's resources, water supply problems, and geologic land use and planning. No credit toward geology major.
### GLY 2050 SCIENCE, EARTH AND LIFE (3)
The nature, history and philosophy of science intended primarily for non-science majors. Consideration of science as a way of knowing through examples taken primarily from historical geology and biology (e.g., extinction of the dinosaurs, continental drift, evolution), but also from physics and astronomy. Consideration of the social relevance of science. Does not count toward geography major.

### GLY 2100 HISTORY OF THE EARTH AND LIFE (3)
PR: A course in geology. Study of the physical and biological history of the earth including evolution of the major groups of organisms, continental drift, and interpretation of ancient environments.

### GRY 2930 SELECTED TOPICS IN GEOLOGY (1-3)
Topical courses in geology of general interest. Does not count toward the geography major.

### GRY 3200 MINERALOGY (4)
PR: GLY 2010, one year of chemistry, or Cl. Principles of crystal chemistry, crystallography and mineralogy with emphasis on common rock-forming minerals. Lec.-lab.

### GRY 3400C STRUCTURAL GEOLOGY (4)
PR: 12 hours of geology, MAC 2132 or equivalent or Cl. Study of the origin and development of structural features of the earth's crust. Applications of principles of geology, physics, and mathematics to understanding relationships of strata and interpreting structural features. Study of regional tectonics and major structural provinces. Lec.-lab.

### GRY 3610C INTRODUCTION TO INVERTEBRATE PALEONTOLOGY (4)
PR: GRY 2100, BSC 2010C or equivalent strongly encouraged as background. Lectures cover principles and applications of paleontology, including biostatigraphy, taphonomy, paleoecology, and micro- and macroevolutionary patterns and processes. Labs survey the invertebrate phyla comprising the bulk of the fossil record.

### GRY 3850 GEOLOGY FOR ENGINEERS (3)
PR: Junior standing in College of Engineering or Cl. An examination of geologic materials and processes designed for engineering students; classification and properties of earth materials, surface processes, site investigation techniques, applications of geology to the solution of engineering problems. (No credit toward the geography major, or for those with credit for GRY 2010.)

### GRY 4310 PETROLOGY OF SEDIMENTARY ROCKS (4)
PR: GRY 2100, BSC 2010C or equivalent strongly encouraged as background. A lecture and laboratory class that integrates knowledge of the lithosphere, atmosphere, biosphere, hydrosphere, and cryosphere to study the sedimentary rock record. Examination of the rock record to solve problems in sedimentary geology.

### GRY 4311 STRATIGRAPHY AND PETROLEUM GEOLOGY (4)
PR: GRY 4550. Emphasis on classical principles of litho- and biostratigraphy, basin analysis, geophysical well logging, origin and occurrence of petroleum. Exploration methods are emphasized. Lec.-lab.

### GRY 4550 DEPOSITIONAL SYSTEMS (4)
PR: GRY 3200, GRY 3220, or concurrent registration. Study of modern sedimentary environments and their relationships to one another in order to understand environments preserved in the rock record. Physical, chemical and biological aspects of terrestrial, transitional and marine sedimentary environments will be examined in light of their eventual preservation in rocks. Laboratory experience will include textual mineralogical analysis of the sedimentary rock record as well as exercises involving sequences of sedimentary strata.

### GRY 4555C SEDIMENTOLOGY (4)
PR: GRY 4220, GRY 4550 or Cl. Analysis of sedimentary rocks and sedimentary structures as related to their environments of deposition. Textural and mineralogical study of sediments and statistical applications to sediment analysis. Lec.-lab.-field trips.

### GRY 4590 GEOMORPHOLOGY (4)
PR: Senior or advanced junior standing and Cl. Origin, evolution and distribution of land forms and soils. Dynamics of the earth's surface. Lec.-lab-field trips.

### GRY 4730 MARINE GEOLOGY (3)
PR: 12 hours of geology or Cl. General survey of the geology of the ocean floor from beaches to ocean trenches including sediments, processes, organisms, and history.

### GRY 4791 FIELD CAMP PART I - FIELD METHODS (3)
PR: Cl. Senior standing. Linked with Field Camp II. Basic field methods; use of pocket transits, techniques of field location, pace and compass traversing, techniques for lithological and structural data collection, fundamentals of geological data presentation and map making. Field camp is located in northern New Mexico. Requires camping and vigorous physical activity. Lec.-field work.

### GRY 4792 FIELD CAMP PART II - FIELD GEOLOGY (3)
PR: Cl. Senior standing. Linked with Field Camp I. Fundamentals of regional field geology; mapping sedimentary, metamorphic and igneous rocks on topographic base maps; interpretation of depositional environments; interpretation of deformational and metamorphic histories. Requires camping and vigorous physical activity. Lec.-field work.

### GRY 4822 INTRODUCTION TO HYDROGEOLOGY (4)
PR: GRY 2010, advanced junior or senior standing, one year each physics and calculus or Cl. Ground water flow systems, ground water geology, introduction to numerical and analytical models of ground water flow. Lec.-lab.-field trips.

### GRY 4905 INDEPENDENT STUDY (1-3)
PR: Cl. Specialized independent study determined by the student. Needs and interests. May be repeated. (S.U. only)

### GRY 4915 UNDERGRADUATE RESEARCH (1-3)
PR: Senior or advanced junior standing and written permission of department prior to registration. Individual experimental investigations with faculty supervision. (S.U. only)

### GRY 4920 GEOLOGY COLLOQUIUM (1)
PR: Senior standing in Geology. Weekly topical lectures by faculty, graduate students and invited speakers.

### GRY 4930 SELECTED TOPICS IN GEOLOGY (1-4)
Each topic is a course under the direction of a faculty member with the content depending on the interests of the students and faculty involved. All areas of geology included. Departmental permission required prior to registration.

### GRY 4970 UNDERGRADUATE HONORS THESIS (3)
Open to seniors admitted to the Geology undergraduate honors program. Students will complete an independent research project under supervision of a faculty member, and present results in a senior thesis and a public presentation.

### GRY 5246 GENERAL GEOCHEMISTRY (3)
PR: One year college chemistry, GRY 4200 or Cl. Applications of basic chemical concepts are used to investigate and explain geological processes, the age and formation of the earth, and environmental conditions.

### GRY 5285C ANALYTICAL TECHNIQUES IN GEOLOGY (4)
PR: One year college chemistry, GRY 4220 or Cl. Use and application of modern analytical methods including X-ray, atomic absorption, and other geochemical techniques. Interpretation and statistical analysis of data acquired. Lec.-lab.

### GRY 5315C IGNEOUS AND METAMORPHIC PETROLOGY (4)
PR: GRY 4220. Systematic study of igneous and metamorphic rocks and complexes, including origin, composition, and classification. Use of the polarizing microscope for thin-section analysis will be emphasized, and other modern methods of study will be employed. Lec.-lab.

### GRY 5475C PRINCIPLES OF APPLIED GEOPHYSICS (4)
PR: Senior standing, one year of college physics and calculus, or Cl. Survey of modern exploration geophysics, including gravimetric, magnetic, electric, and seismic methods as applied to exploration and site investigations. Lec.-lab.-field trips.

### GRY 5752 GEOLOGICAL FIELD EXCURSION (2)
PR: GRY 3400, GRY 4550, and GRY 4750. Lectures and 2-3 week field excursion to study regional geology, structure and lithogenesis of geologically complex terrain. Mapping and outcrop description techniques are emphasized. Destination of trip
varies. Trip requires camping and vigorous physical activity. Lec.-
field trip.

GLEY 5827C ADVANCED HYDROGEOLOGY (4)
PR: GLEY 4822, MAC 3282 or MAC 3312 or CI. Flow systems,
application aspects of aginal solutions to ground water flow prob-
lems. Emphasis on the theoretical aspects of ground water flow
systems and their interaction with the geologic framework. Lec.

GLEY 5865 STATISTICAL MODELS IN GEOLOGY (3)
PR: STA 3023 or equivalent or CI. Application of statistical
methods to geological problems. Emphasis on sampling plans,
nature of geologic distributions, and application of analyses of
variance to solving geological problems. Lec.

GLEY 5932 SELECTED TOPICS IN GEOLOGY (1-4)
PR: Senior or advanced junior standing and CC. Each topic is a
course in directed study under supervision of a faculty member.
All areas of geology included. Departmental permission required
prior to registration.

OCE 3001 INTRODUCTION TO OCEANOGRAPHY (3)
Overview of biological, chemical, geological, and physical ocean-
ography. Does not count toward geology major. (Also listed
under Marine Science.)

GERONTOLOGY

GLEY 3000 INTRODUCTION TO GERONTOLOGY (3)
This course is designed to be an introduction to the study of
aging. The aging process is viewed from a multi-disciplinary
perspective including the biological, psychological, and socio-
ological aspects of aging.

GLEY 3501 BEHAVIOR CHANGES IN LATER LIFE (3)
PR: GLEY 3000. A survey of physical and psychological aspects of
aging from middle age through older age. Course emphasis will
be on basic age-related changes and their implications for
behavior in older age.

GLEY 3525 SOCIOCULTURAL ASPECTS OF AGING (3)
PR: GLEY 3000. Consideration of human aging in a broad
sociocultural context. Course emphasis will be on historical,
philosophic, and demographic aspects of aging, theories of
social gerontology, attitudes toward aging and the aged, cross-
cultural perspectives on aging, the sociology of retirement, and
aging and the community.

GLEY 4327 LONG-TERM CARE ADMINISTRATION I (3)
PR: GLEY 3000, ACG 2011. A survey of Long Term Care (LTC)
environments. Explored are such issues as definitions of LTC,
physiological conditions of LTC uses, the institutional setting, the
sociopsychological context, and methods of evaluation and
intervention.

GLEY 4328 LONG-TERM CARE ADMINISTRATION II (3)
PR: GLEY 4327. Administration of long-term care institutions from
a group dynamics perspective. Emphasis on informed problem
solving and decision-making via analysis of the psychosocial and
sociocultural environment in the nursing home community.
Course objective is to create efficient and humane living and
working conditions in nursing homes.

GLEY 4329 LONG-TERM CARE ADMINISTRATION III (3)
PR: GLEY 4328. This course will familiarize the student with the
basic aspects of nursing home administration through the
practical application of management theory and concepts.

GLEY 4560 Geronotological Counseling (3)
An introduction to the study of the major mental health prob-
lems of the elderly. Current approaches to counseling the elderly
in community and institutional settings are discussed.

GLEY 4401 RESEARCH METHODS IN GERONTOLOGY (3)
PR: STA 3122 or equivalent. Restricted to Gerontology majors,
others by departmental permission. Methods and techniques of
social research in gerontology. Design of gerontological studies,
collection and analysis of data, interpretation of results, and
preparation of reports.

GLEY 4640 DEATH AND DYING (3)
PR: GLEY 3000. A broad overview of the basic concepts and
psychosocial issues relating to the meaning of loss and death,
their effect on families and the elderly, and of grieving. Health care
practices are considered along with community resources.

GLEY 4900 DIRECTED READINGS (1-3)
PR: CI. A reading program with topics in gerontology conducted
under the supervision of a faculty member.

GLEY 4935 SPECIAL TOPICS IN GERONTOLOGY (3)
Courses on topics such as retirement, mental health, human
services organization, nursing home administration, the older
woman, and elder abuse will be offered. May be repeated up to
6 credit hours.

GLEY 4945 FIELD PLACEMENT (6-8)
PR: CI. Internship in an agency or community setting. A full-time
assignment to an agency or organization, engaged in planning or
administering programs for older people in the BA program,
or to a nursing home if in the BS program.

GLEY 5603 SOCIOCULTURAL ASPECTS OF AGING (3)
Examines, within a sociological frame of reference, the interre-
relationships between the aged (or aging) and the structure and
function of the social systems and its major institutionalized sub-
systems.

GLEY 5630 ECONOMICS AND AGING (3)
Examines basic economic systems as they impact the aged.
Emphasis is on applied aspects of economic planning, pensions,
insurance, social security, and other support systems.

GLEY 5642 PERSPECTIVES ON DEATH AND DYING (3)
Study of the various psychological, medical, legal, and religious
problems caused by dying and death, and of how individuals and
families have responded in the past and present.

HUS 3001 INTRODUCTION TO HUMAN SERVICES (3)
An introduction to the field of human services. Study of the pro-
fessions and agencies involved in providing human services.
Analysis of the values and ethics of various professional associa-
tions.

HUS 4020 THE LIFE CYCLE (4)
An examination of individuals and the physiological and psycho-
social changes which occur during infancy, childhood, adoles-
cence, young adulthood, middle age and old age.

HUS 4100 INTERVIEWING (3)
PR: CI 3001. The principles and techniques of interviewing.
Use of interviewing in information gathering, research and
helping relationships and developing skills in communication
across cultural, social and age barriers.

HISTORY

AFH 3100 AFRICAN HISTORY SINCE 1850 (3)
An outline survey of pre-colonial African history including a
prefatory introduction to the use of primary sources (such as ar-
cheology, oral tradition, cultural anthropology, comparative
linguistics, documents) in reconstructing the African past. (Also
offered under Africana Studies.)

AFH 3100 AFRICAN HISTORY SINCE 1850 (3)
Survey of the Colonial and post-colonial history of Africa. Empha-
sis on the impact of European and other alien influences on the
continent, emergence of independent African states, and postin-
dependence problems of nation building and economic develop-
ment. (Also offered under Africana Studies.)

AMH 2101, 2010 AMERICAN HISTORY I, II
(3,3)
A history of the United States with attention given to relevant
developments in the Western Hemisphere. AMH 2010: European
origins to 1877; AMH 2020: 1877 to present.

AMH 3110 AMERICAN COLONIAL HISTORY TO 1750 (4)
A study of the evolution of American society from the Age of Re-
connaissance to 1750. Also an introduction to the transformation
from colonies to provinces with emphasis on ethnocultural conflict,
religion, labor systems, and political culture.

AMH 3130 THE AMERICAN REVOLUTIONARY ERA (4)
Emphasis on the causes of the American revolution, the nature
of Constitution-making, and the establishment of the federal
system. Also examines the significance of loyalism, violence, and
slavery in American society from 1750-1879.

AMH 3140 THE AGE OF JEFFERSON (4)
A comprehensive study of American society and political culture
from 1789-1828. Focuses on demographic trends, party sys-
tems, expansionism, Indian policy, labor, and ethno-cultural con-
flicts.

AMH 3150 THE AGE OF JACKSON (4)
The United States from 1828-1850, with emphasis on social and
political conflict. Consideration of evangelicalism, reform, labor
movements, urbanization, and political activity in the antebel-
um era.
AMH 3170 THE CIVIL WAR AND RECONSTRUCTION (4)
An examination of political, social, and economic climate of the 1850's that led to the American Civil War. The course does focus upon the war itself in its military, diplomatic, and political consequences for the end of the Reconstruction (1877).

AMH 3201 THE UNITED STATES, 1877-1929 (4)
A study of America from the end of Reconstruction to the stock market crash. Ranging over political, social, and diplomatic developments, the course covers industrialization, reform, imperialism, relations, and World War I.

AMH 3252 THE UNITED STATES SINCE 1929 (4)
The United States from the Great Depression to the present. Covering political, social and diplomatic developments, examines the New Deal, World War II, the Cold War, Viet Nam, civil rights, feminism and Watergate.

AMH 3402 THE OLD SOUTH (4)
A study of the American South from its colonial origins to the fall of the Confederacy in 1865. Emphasis on slavery and race, the Southern frontier, the development of sectional consciousness, and the coming of the Civil War.

AMH 3403 THE SOUTH SINCE 1865 (4)
Southern history since the surrender at Appomattox. Topics covered include Reconstruction, the Populist revolt, race relations, demography and disfranchisement, Southern women, and the Civil Rights Movement.

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

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

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

AMH 3510 U.S. DIPLOMATIC HISTORY TO 1898 (3)
The development of American Foreign Relations in the Agricultural era.

AMH 3511 U.S. DIPLOMATIC HISTORY IN THE 20TH CENTURY -6A (4)
A history of American Foreign Relations in the Industrial era.

AMH 3530 IMMIGRATION HISTORY (4)
A study of the composition and character of the 'American' people with emphasis on the period from 1840s to the 1920s. Examines old world backgrounds of immigrants and their responses to the new world's social, economic and political conditions.

AMH 3550 UNITED STATES MILITARY HISTORY (4)
A study of American military policy and practices from colonial days to the present. Attention is given both to tactics and to strategy in the unfolding formulation and development of American armed might.

AMH 3545 WAR AND AMERICAN EMPIRE (4)
The U.S. evolved in 200 years from 13 colonies to the number one power in the world. To achieve this goal we utilised war to achieve empire. This course will examine the link between American War and empire from the Revolution through Viet Nam.

AMH 3561 AMERICAN WOMEN I (4)
A study of women in the evolution of American society from European origins to 1877. Women's roles in the family, economy, politics, wars, and reform movements will be examined. (May also be taken for credit in Women's Studies.)

AMH 3562 AMERICAN WOMEN II (4)
A study of women in the evolution of American society from 1877 to the present. Women's roles in the family, economy, politics, religion, and reform movements will be examined. (May also be taken for credit in Women's Studies.)

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

ASH 3404 MODERN CHINA (4)
Political, economic, and social history of China from the time of the first major Western contacts (17th-18th Centuries) through the consolidation of socialism in the late 1950's, and the Great Leap Forward.

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

E.U.H. 2011, 2012 ANCIENT HISTORY I, II (3,3)
An introductory survey of ancient history. EUH 2011 treats the ancient Near East and Greece from the origins of civilization to the full development of the Hellenistic kingdoms prior to conflict with Rome. EUH 2012 deals with Rome through the Regal, Republican, and Imperial periods, from the beginnings of civilization in Italy to the division of the Roman Empire, A.D. 395.

E.U.H. 2021, 2022 MEDIEVAL HISTORY I, II (3,3)
A thematic survey of the Middle Ages. EUH 2021 deals with the nascent, Christian civilization of European, circa 300-1050 A.D.; EUH 2022 treats the mature medieval civilization of Europe, circa 1050-1500.

E.U.H. 2030, 2031 MODERN EUROPEAN HISTORY I, II (3,3)
A thematic survey of Europe in the modern age. EUH 2030 treats the period from the Renaissance to the French Revolution; EUH 2031, from the French Revolution to the present.

E.U.H. 2142 RENAISSANCE AND REFORMATION (4)
A history of Europe from the Renaissance to the Thirty Years' War (1400-1618). The cultural, social, and economic characteristics will provide the framework for artistic, philosophical, religious, and political developments.

E.U.H. 3181 MEDIEVAL CULTURE (4)
A survey of thought, culture, and art in the Middle Ages. Medieval attitudes as manifested in literature, art, philosophy, education, and religion; with emphasis upon Medieval man's changing perception of himself and his world.

E.U.H. 3185 VIKING HISTORY (4)
The role of the Vikings in the shaping of Western history. A comprehensive survey of their institutions, outlook and daily life. Viking expansion into Europe and North America.

E.U.H. 3188 MEDIEVAL SOCIETY (4)
A study of the daily life and attitudes of the medieval nobleman, peasant, townsmen, and the agrarian-urban economy and society which affected their lives.

E.U.H. 3189 MEDIEVAL POLITICS (4)
An inquiry into the nature, distribution, and use of political power during the Middle Ages, in such institutions as feudalism, monarchy, cities, and the church.

E.U.H. 3202 HISTORY OF 17TH AND 18TH CENTURY EUROPE (4)
A history of Europe from the beginning of the Thirty Years' War to the outbreak of the French Revolution. Political and intellectual developments will be assessed in the light of society and the economy.

E.U.H. 3205 HISTORY OF NINETEENTH CENTURY EUROPE (4)
A comparative study of economic, political, social, and intellectual developments in nineteenth century Europe.

E.U.H. 3206 HISTORY OF TWENTIETH CENTURY EUROPE (4)
A comparative study of economic, political, social, and intellectual developments in twentieth century Europe.

E.U.H. 3300 BYZANTINE HISTORY (4)
A survey of the Byzantine (Eastern Roman) Empire from its foundation in A.D. 330 to its collapse in 1453. Emphasis on the relationship between the Byzantine Empire and the course of European history and on the cultural heritage of this Empire.

E.U.H. 3401 CLASSICAL GREECE (4)
A study of ancient Greece focusing on the brilliant period following the Persian Wars, but embracing as well the formative Bronze, Middle and Archaic ages, and the decline culminating in the conquest of Alexander the Great and Philip II of Macedon in 338 B.C.

E.U.H. 3402 AGE OF ALEXANDER (4)
A study focusing on the career of Alexander the Great and on the Greek and Macedonian conquest of Imperial Persia. Also treated are the great Hellenistic kingdoms prior to Rome's conquest of the eastern Mediterranean.
EUH 3412 ROMAN REPUBLIC
A study of the Roman Republic from 509 B.C. to the assassination of Julius Caesar in 44 B.C., with a prelude treating Rome's earlier evolvement under kingship and royal rule. Political growth and change provide the framework for the treatment.

EUH 3413 ROMAN EMPIRE
A study of Imperial Roman from the assassination of Julius Caesar in 44 B.C. to the death of the emperor Constantine in A.D. 337. Emphasized is Rome's government of a vast Mediterranean empire including much of the Near East and Europe.

EUH 3461 GERMAN HISTORY TO 1870
A political, social, and cultural approach to the history of the Germanies from 1500 through 1870, with emphasis on the Protestant Reformation, the rise of Brandenburg-Prussian, and the unification under Bismarck.

EUH 3462 GERMAN HISTORY 1870 TO PRESENT
A political, social, and cultural approach to the history of the German Empire from 1870 through the 1970's. The nation's two attempts to try for world power status are highlighted, as well as the Weimar Republic, prototype of the embattled democracy.

EUH 3501 BRITISH HISTORY TO 1688
A study of major developments in British history from the 15th century to 1688.

EUH 3502 BRITISH HISTORY 1688 TO PRESENT
A study of the major themes of British history since the Glorious Revolution, including social, political, and economic developments leading to the creation of the modern demographic welfare state.

EUH 3530 BRITISH EMPIRE AND COMMONWEALTH
A study of the development of the British Empire from the age of initial expansion overseas to the creation of the multinational commonwealth. Included are examinations of theory and myth of colonialism as well as the literature of imperialism.

EUH 3541 RUSSIAN HISTORY TO 1865
A survey of the social, political, economic, and cultural development of Russia from the year 800 to 1865. Topics include the personality of Russian rulers, the origins of Russian Socialism, and Russia's relationship to the West.

EUH 3572 RUSSIAN HISTORY 1865 TO PRESENT
An analysis of the tradition from late imperial society to the contemporary Soviet system. Emphasis will be placed on continuity and change in the economic, political, and cultural aspects of Russia from 1865 to present.

HIS 2931 SPECIAL TOPICS
This course emphasizes a selected historical problem or issue. A variety of instructional approaches will be taken, and topics may vary.

HIS 3474 SCIENCE AND CIVILIZATION - 6A
A thematic study of the interrelationship of science and society in modern history emphasizing the institutional forms, value structures, and social relations in science as they have developed through the scientific revolution to the present.

HIS 3930 SPECIAL TOPICS
This course is designed to emphasize a selected historical problem or issue that is meaningful and challenging to the student. A variety of instructional approaches will be taken to the material. Topics will be changed each semester.

HIS 4104 THEORY OF HISTORY
Recommended to be taken during the senior year. Required of all history majors. An analysis of the foundations of historical knowledge and historical methodology. Includes a survey of historical thinking and writing from ancient times to the present.

HIS 4900 DIRECTED READING
PR: CI. Arrangement with instructor prior to registration. Readings in special topics.

HIS 4920 COLLOQUIUM IN HISTORY
Reading and discussion of selected topics in the various fields of history. The subject and scope of inquiry will be determined by the instructor for each section. May be repeated for credit.

HIS 4936 PRO-SEMINAR IN HISTORY
PR: CI. Advanced topics in the various fields of history. Emphasis on discussion of assigned readings and on research and writing of a major paper. Required of all history majors. May be repeated up to 12 credit hours.

HIS 5215 HISTORICAL WRITING
A course for graduate and advanced undergraduates to combine library, archival and research skills with an examination of various writing styles. Analytical and synthetic skills are stressed in writing articles, reviews and essays.

LAH 3130 COLONIAL LATIN AMERICA
A study of the Spanish and Portuguese Colonial empires in the New World from 1492-1830.

LAH 3200 MODERN LATIN AMERICA
A study of the emergence of the Latin American states. The course will examine developments in Latin America during the nineteenth and twentieth centuries. Special attention is given to the Third World character of the region.

LAH 3430 HISTORY OF MEXICO
Mexican history from pre-Columbian cultures to the twentieth century. Emphasis falls on the colonial political economy, social development, the wars of independence, development of the 19th century Mexican state and the Mexican revolution.

LAH 3470 HISTORY OF THE CARIBBEAN
A thematic study of the circum-Caribbean from pre-Columbian cultures to the twentieth century, emphasizing the development of the Caribbean political economy with emphasis on monoculture, plantation society, and colonial/neo-colonial relationships.

LAH 3480 HISTORY OF CUBA
Cuban history from pre-Columbian cultures to the Cuban Revolution. Emphasis on colonization, the sugar economy, the struggles for independence, the political economy of the Republic, and the 20th century revolutionary process.

WST 3210 WOMEN IN WESTERN CIVILIZATION I - 6A
Survey of women in the ancient Near East, ancient Greece, ancient Rome, early Middle Ages. Origins of Western attitudes toward sex roles, female sexuality, relation of power to gender. (May also be taken for credit in Women's Studies.)

WST 3220 WOMEN IN WESTERN CIVILIZATION II
Survey of European women from the late Middle Ages to the twentieth century: differing consequences of historical change for women and men. (May also be taken for credit in Women's Studies.)

WST 4309 THE FEMALE EXPERIENCE IN AMERICA
PR: WST 2010, or WST 3011, or CI. The female experience in America, in historical context, with an emphasis on women in families of various classes, races, and ethnic groups, from colonial times to 1870. (May also be taken for credit in Women's Studies.)

WST 4310 FEMINISM IN AMERICA
PR: WST 2010, or WST 3011, or CI. Emergence of the women's movement in 19th century America: origins, theoretical and practical issues, relation to European feminism. Sources, issues, implications of 20th century feminism. (May also be taken for credit in Women's Studies.)

HUMANITIES
HUM 2930 SELECTED TOPICS
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 300 THE ARTS
Analysis of selected works of literature, music, film, and visual art, representing artists of diverse periods, cultures, genders, and races. Especially recommended for students who later take 4000-level Humanities courses.

HUM 3214 STUDIES IN CULTURE: THE CLASSICAL THROUGH MEDIEVAL PERIODS
A survey of literature and the arts of ancient Greece, Rome, and medieval Europe. Issues to be examined may include the dialogue between local traditions and cosmopolitan cultures, the relationship of the individual to society, and the bases for moral values.

HUM 3218 STUDIES IN CULTURE: THE RENAISSANCE THROUGH THE NINETEENTH CENTURY
A historical survey of the visual arts, literature, music and thought of Europe from the Renaissance through the nineteenth century. Issues to be examined may include the relationship between science and the arts and the consequences of the
growing contacts among world civilizations.

HUM 3251 STUDIES IN CULTURE: THE TWENTIETH CENTURY (3)
Analyses of selected works of twentieth century art, including films, paintings, music, and literature, in the context of political, social, and economic events, such as war, depression, totalitarianism, and technological change.

HUM 3271 THE CULTURE OF THE EAST AND WEST I (3)
A comparative treatment of music, visual arts, theatre, literature, and philosophy in the East and West, proceeding chronologically from Ancient times through to the Middle Ages, emphasizing China and India.

HUM 3273 THE CULTURE OF THE EAST AND WEST II (3)
A comparative treatment of music, visual arts, theatre, literature, and philosophy in the East and West, proceeding chronologically from the Renaissance through the present, emphasizing Europe, the United States, and India.

HUM 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 4405 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, and 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 Herculanum.

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 illuminated manuscripts, mosaics, paintings, 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 (4)
PR: Sophomore standing or Cl. A study of the Italian Renaissance, 1300-1580, emphasizing Humanism, painting, architecture, literature, music and sculpture. Special study will be done of Petrarch, Giotto, Da Vinci, and Michelangelo.

HUM 4438 RENAISSANCE ARTS AND LETTERS II (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 (4)
PR: Sophomore standing or Cl. This course includes the arts, literature, and music of the Baroque, Rocco, and Neo-Classical periods with special study of Rubens, Rembrandt, Bach, Haydn, and Mozart.

HUM 4441 ARTS AND LETTERS OF THE ROMANTIC PERIOD (4)
PR: Sophomore standing or Cl. 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 Cl. 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 Cl. Analysis of selected works of twentieth century art. The course will focus on a particular phase in the development of modernism, a set of themes, or certain stylistic aspects of various arts of the twentieth century.

HUM 4446 TWENTIETH CENTURY ARTS AND LETTERS II (4)
PR: Sophomore standing or Cl. 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 Cl. 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 Cl. 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 4461 LATIN AMERICAN ARTS AND LETTERS I (4)
PR: Sophomore standing or Cl. 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 Cl. 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: Cl. Specialized individual study determined by the student’s needs and interests.

HUM 4930 SELECTED TOPICS IN HUMANITIES (1-4)
PR: Sophomore standing or Cl. 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 - 6A (4)
PR: Humanities major or Cl. Senior standing. Discussion of interdisciplinary humanities. Includes essay. (Fall term only.)

HUM 4938 MAJOR ISSUES IN THE HUMANITIES (3)
An interdisciplinary course on an important topical issue in the Humanities. Materials representing diverse views relating to that issue will be read, and works of art in different media that have relevance to the debate will be studied. Available to majors and non-majors.

HUM 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.

INTERDISCIPLINARY SOCIAL SCIENCES

150

ISS 3010 INTRODUCTION TO THE SOCIAL SCIENCES (3)
An introduction to the fields within the social sciences. Emphasis is placed on the concepts, theories, methodologies and applications used in the social sciences. Course may be taken by non-majors.

ISS 3930 SELECTED TOPICS IN THE SOCIAL SCIENCES (1-4)
Interdisciplinary studies with course content dependent on student demand and instructor's interest. May be repeated as topics vary.

ISS 4162 THE CITY AND URBANIZATION (3)
An interdisciplinary perspective will be used to examine the emergence of the city and the urban revolution. Urban planning and governance will be examined in looking at how urban areas deal with social and physical problems.

ISS 4164 URBAN SOCIAL ISSUES: AN INTERDISCIPLINARY APPROACH (3)
This course is designed to examine current social issues from an interdisciplinary perspective. Topic selection will be within the broad framework of technological changes, economic conditions, political ideologies, and their impact on changing social patterns.