Accent on Learning

GENERAL CATALOG
OF THE
UNIVERSITY OF SOUTH FLORIDA
1969-70

BULLETIN OF THE
UNIVERSITY OF SOUTH FLORIDA

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VISITING THE UNIVERSITY

Prospective students are invited to visit the University whenever possible. Many offices, including the Admissions Office, receive visitors only from 9:30 a.m. to 4:00 p.m. Monday through Friday. Given advance notice, the Admissions Office will arrange tour guides for visiting groups.

The University is located on Fowler Avenue (State Route 582) approximately two miles east of Interstate 75 and Nebraska Avenue (U.S. Route 41) and seven miles north of Interstate 4.

CORRESPONDENCE

Correspondence regarding various phases of the University program should be directed as follows:

Application and admission information
   Director of Admissions

Conferences and workshops
   Center for Continuing Education

Courses and programs for freshmen
   Office of the Dean, College of Basic Studies

Courses and programs for upperclassmen and graduates
   Office of the Dean of the appropriate college

Evening Classes
   Center for Continuing Education

Financial assistance
   Director of Financial Aids

Graduate study
   Office of the Dean of the appropriate college

Gifts and bequests
   University of South Florida Foundation

Facilities for handicapped students
   Dean of Student Affairs

Housing assistance
   Housing Office, Auxiliary Services

Placement and employment
   Division of Personnel Services

Transcripts and records
   Registrar's Office

General Information
   Office of Information Services

University of South Florida
   Tampa, Florida 33620
   University Telephone: 988-4131 (Area Code 813)

St. Petersburg Campus
   830 1st Street South
   St. Petersburg, Florida 33701
   Phone: 898-7411 (Area Code 813)

The University of South Florida reserves the right to withdraw or change the announcements included in this Bulletin, without notice.

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# ACADEMIC CALENDAR

## FOURTH QUARTER, 1968-69

<table>
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<tr>
<th>Date</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>May 27, Tuesday</td>
<td>Last day to apply for admission or re-admission</td>
</tr>
<tr>
<td>June 16, Monday</td>
<td>Registration by appointment</td>
</tr>
<tr>
<td>June 16, Monday</td>
<td>Last day to cancel and receive full refund of registration fees (see section on “REFUNDS”)</td>
</tr>
<tr>
<td>June 17, Tuesday</td>
<td>Classes begin</td>
</tr>
<tr>
<td>June 19, Thursday</td>
<td>Last day to withdraw and/or drop and receive partial refund of registration fees (see section on “REFUNDS”)</td>
</tr>
<tr>
<td>July 4, Friday</td>
<td>Independence Day Holiday</td>
</tr>
<tr>
<td>July 7, Monday</td>
<td>Last day to remove an “X” grade. Official forms must be in Registrar’s Office by this date</td>
</tr>
<tr>
<td>July 7, Monday</td>
<td>Last day to apply for a degree to be earned at the end of Quarter IV, 1968-1969</td>
</tr>
<tr>
<td>July 14, Monday</td>
<td>Last day to drop courses without penalty</td>
</tr>
<tr>
<td>July 18, Friday</td>
<td>Last day to withdraw without penalty</td>
</tr>
<tr>
<td>August 15, Friday</td>
<td>End of Quarter IV</td>
</tr>
</tbody>
</table>

## FIRST QUARTER, 1969-70

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>August 6, Wednesday</td>
<td>Last day to apply for admission or re-admission</td>
</tr>
<tr>
<td>September 21, Sunday</td>
<td>First day of orientation</td>
</tr>
<tr>
<td>September 23,24,25, Tue-Thu</td>
<td>Registration by appointment</td>
</tr>
<tr>
<td>September 28, Sunday</td>
<td>Last day to cancel and receive full refund of registration fees (see section on “REFUNDS”)</td>
</tr>
<tr>
<td>September 29, Monday</td>
<td>Classes begin</td>
</tr>
<tr>
<td>October 1, Wednesday</td>
<td>Last day to withdraw and/or drop and receive partial refund of registration fees (see section on “REFUNDS”)</td>
</tr>
<tr>
<td>October 17, Friday</td>
<td>Last day to remove an “X” grade. Official forms must be in Registrar’s Office by this date</td>
</tr>
<tr>
<td>October 17, Friday</td>
<td>Last day to apply for degree to be earned at the end of Quarter I, 1969-1970</td>
</tr>
<tr>
<td>October 24, Friday</td>
<td>Last day to drop courses without penalty</td>
</tr>
<tr>
<td>November 14, Friday</td>
<td>Last day to withdraw without penalty</td>
</tr>
<tr>
<td>November 27,28, Thu-Fri</td>
<td>Thanksgiving Holiday</td>
</tr>
<tr>
<td>December 12, Friday</td>
<td>End of Quarter I</td>
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## SECOND QUARTER, 1969-70

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>November 26, Wednesday</td>
<td>Last day to apply for admission or re-admission</td>
</tr>
<tr>
<td>January 2, 3, Fri and Sat</td>
<td>Registration by appointment</td>
</tr>
<tr>
<td>January 5, Monday</td>
<td>Last day to cancel and receive full refund of registration fees (see section on “REFUNDS”)</td>
</tr>
<tr>
<td>January 6, Tuesday</td>
<td>Classes begin</td>
</tr>
<tr>
<td>January 8, Thursday</td>
<td>Last day to withdraw and/or drop and receive partial refund of registration fees (see section on “REFUNDS”)</td>
</tr>
<tr>
<td>January 26, Monday</td>
<td>Last day to remove an “X” grade. Official forms must be in Registrar’s Office by this date</td>
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ACADEMIC CALENDAR

January 26, Monday  
February 2, Monday  
February 2, Monday  
February 9, Monday  
February 20, Friday  
March 20, Friday  

Last day to apply for a degree to be earned at the end of Quarter II, 1969-1970  
Last day to drop courses without penalty  
Gasparilla Day Holiday  
Last day to withdraw without penalty  
End of Quarter II  

THIRD QUARTER, 1969-70

February 18, Wednesday  
March 30, 31, Mon-Tue  
March 31, Tuesday  
April 1, Wednesday  
April 3, Friday  
April 21, Tuesday  
April 21, Tuesday  
April 28, Tuesday  
May 15, Friday  
June 5, Friday  
June 12, Friday  
June 14, Sunday  

Last day to apply for admission or re-admission  
Registration by appointment  
Last day to cancel and receive full refund of registration fees (see section on “REFUNDS”)  
Classes begin  
Last day to withdraw and/or drop and receive partial refund of registration fees (see section on “REFUNDS”)  
Last day to remove an “X” grade. Official forms must be in Registrar’s Office by this date  
Last day to apply for a degree to be earned at the end of Quarter III, 1969-1970  
Last day to drop courses without penalty  
Last day to withdraw without penalty  
Deadline to have Graduating Student’s final grades in at the Registrar’s Office  
End of Quarter III  
Commencement Convocation  

FOURTH QUARTER, 1969-70

May 13, Wednesday  
June 15, Monday  
June 15, Monday  
June 16, Tuesday  
June 18, Thursday  
July 3, Friday  
July 6, Monday  
July 6, Monday  
July 13, Monday  
July 17, Friday  
August 14, Friday  

Last day to apply for admission or re-admission  
Registration by appointment  
Last day to cancel and receive full refund of registration fees (see section on “REFUNDS”)  
Classes begin  
Last day to withdraw and/or drop and receive partial refund of registration fees (see section on “REFUNDS”)  
Independence Day Holiday  
Last day to remove an “X” grade. Official forms must be in the Registrar’s Office by this date  
Last day to apply for a degree to be earned at the end of Quarter IV, 1969-1970  
Last day to drop courses without penalty  
Last day to withdraw without penalty  
End of Quarter IV
ACADEMIC CALENDAR

FIRST QUARTER, 1970-71

August 5, Wednesday  
Last day to apply for admission or re-admission
September 20, Sunday  
First day of orientation
September 22,23,24, Tue-Thu  
Registration by appointment
September 28, Monday  
Classes begin
December 11, Friday  
End of Quarter I

SECOND QUARTER, 1970-71

November 25, Wednesday  
Last day to apply for admission or re-admission
January 4, 5, Mon-Tue  
Registration by appointment
January 6, Wednesday  
Classes begin
March 19, Friday  
End of Quarter II

THIRD QUARTER, 1970-71

February 17, Wednesday  
Last day to apply for admission or re-admission
April 1, 2, Thu-Fri  
Registration by appointment
April 5, Monday  
Classes begin
June 11, Friday  
End of Quarter III
June 13, Sunday  
Commencement Convocation

FOURTH QUARTER, 1970-71

May 12, Wednesday  
Last day to apply for admission or re-admission
June 14, Monday  
Registration by appointment
June 15, Tuesday  
Classes begin
August 13, Friday  
End of Quarter IV
GENERAL INFORMATION

The University of South Florida was founded December 18, 1956, by the State Board of Education, following more than two years of preparatory study by the State Legislature, the Board of Education, and the State Board of Control (now the Board of Regents). When it was opened to a charter class of 2,000 freshmen on September 26, 1960, it became the first state university in the United States to be totally planned and initiated in this century. It also represented the first step in a broad and comprehensive expansion of the State University System of Florida.

This system of public universities now includes the University of Florida in Gainesville, Florida State University and Florida A & M University in Tallahassee, the University of South Florida, Florida Atlantic University in Boca Raton, the University of West Florida near Pensacola, and Florida Technological University near Orlando. In addition, there are 25 public junior colleges in population centers throughout the state.

More than 6,000 students had graduated from the University of South Florida by the end of 1968. Enrollment for the fall of 1969 is expected to reach 15,000.

The University is accredited by the Southern Association of Colleges and Schools, the official accrediting agency for all educational institutions in the South.

Tampa Campus

On a 1,672-acre campus eight air miles northeast of downtown Tampa, the University is ideally located for steady growth and development in the heart of an expanding metropolitan area having nearly a million people within a 30-mile radius. The campus is midway between U.S. Highway 41 and 301 on State Highway 582. Interstate 75 passes two miles to the west.

The physical plant of the University, now including 31 major academic and residence buildings, is currently valued at more than $50 million. The buildings are of similar, modern architectural design and all are completely air conditioned. Major buildings now in use are:

Administration Building, housing administrative and business offices and a number of special service units of the institution;
Library, a five-story structure designed for 250,000 volumes in open stacks;
University Center, with student and faculty offices, meeting rooms, recreation areas and classrooms, as well as a cafeteria, and the University Bookstore;
Theatre, seating 550 persons for cultural events and also serving as a lecture and teaching auditorium;
Theatre Centre, with rehearsal rooms for dance, drama, and opera, costume and prop shops, offices, and a Centre Stage for production preparation;
Chemistry Building, with classrooms and laboratories for chemistry and offices for faculty;
Life Sciences Building, housing the University's programs in biological sciences;


Fine Arts-Humanities Building, with separate wings for humanities, art and music;
Physics Building, housing physics, astronomy, and mathematics;
Planetarium, adjacent to Physics Building, with regular programs presented under the 30-foot dome;
Argos and Andros residence halls and activities centers, housing 2,800 students and providing central dining, recreational and service facilities in 14 separate but coordinated buildings;
College of Business Administration Building, housing the dean and faculty of the college, classrooms, and a 430-seat teaching auditorium;
College of Engineering Building, housing the dean and faculty of the college, classrooms, laboratories, and a 250-seat auditorium;
Physical Education Classroom Building, housing the director and faculty of the Division of Physical Education, classrooms, gymnasium, activities area, and an indoor swimming pool;
College of Education Building, housing the dean and faculty of the college, classrooms, an auditorium seating 200, and an Instructional Materials Center;
Astronomy Observatory, on the north campus adjacent to University golf course, housing a $100,000 photo-telescope and several smaller telescopes;
Science Center, completed in 1966, housing laboratories and research facilities for graduate students and faculty plus the USF Computer Research Center. The four-story research facility contains no classrooms. Besides research facilities it contains graduate student study cubicles and a combination science-mathematics-engineering reading room; and
Social Science Building, completed in 1968, can accommodate 1,000 students in classes and laboratory work at the same time. The building includes 120 faculty offices, classrooms, seminar rooms, clinical and experimental research labs, weather and climatology labs, and a complete weather station.

Other building construction on this all-air-conditioned campus continues toward a goal of around $50 million in additional buildings to house and instruct the 26 to 27 thousand students expected at the University by 1975.

Many additional programs are operated by the University’s Center for Continuing Education in twelve central Florida Counties stretching from the Gulf of Mexico to the Atlantic Ocean. In this area, the Florida Board of Regents has designated the University of South Florida to be responsible for all higher education requirements above that supplied by the State Junior College System. The Center also operates a century-old mansion, Chinsegut Hill near Brooksville, Florida, as an education retreat for seminars and meetings.

St. Petersburg Campus

The St. Petersburg Campus of the University of South Florida opened in September, 1965, and provides an opportunity for university students who are residents of Pinellas County to complete all or a portion of their course work in selected areas without leaving the county. Enrollment in the St. Petersburg Campus courses is not restricted to Pinellas County residents.

Located on Bayboro Harbor adjacent to downtown St. Petersburg, the
campus is within easy walking distance of many of the cultural and recreational facilities of Florida's "Sunshine City."

Resident faculty members provide personal and social, as well as scholastic, counseling. This core of resident faculty is supplemented by professors commuting from the Tampa Campus to provide additional scope to the academic program.

The academic program at the St. Petersburg Campus is restricted to courses designed to serve students of junior, senior, and graduate standing. Selected courses and programs are offered by the Colleges of Basic Studies, Business Administration, Education, Engineering, and Liberal Arts. Students may enroll as full time students on the St. Petersburg Campus or they may elect to enroll on both the St. Petersburg and the Tampa campuses simultaneously. Dual enrollments on both campuses may provide students with a class schedule which is both flexible and convenient.

In addition to providing academic programs from the university's five colleges, the St. Petersburg Campus houses a Marine Science Research and Training Center.

The Marine Science Institute of the University of South Florida, with headquarters at the St. Petersburg Campus, is an interdisciplinary venture involving faculty members of seven different departments in three colleges in addition to three full-time faculty members at the St. Petersburg Campus who are concerned with planning, administration, research, and teaching.

Probably no other oceanographic institution has ever been established with such excellent facilities as those provided by the St. Petersburg Campus for teaching, research, and the docking and maintenance of oceanographic vessels. The location of the Institute, at the center of the edge of the great continental shelf of the Florida Gulf Coast and in the midst of the metro-
politan area of the Sun Coast, is another of its unique advantages. It would seem destined to develop into one of the nation's leading oceanographic centers.

Even though an undergraduate major in the marine sciences is not offered, a proposal for offering the master's degree in the Department of Marine Science is currently being considered. During the summer quarter, the Institute offers one of the most comprehensive arrays of marine science courses to be found at any university in the nation. Most of these courses are open to both undergraduate and graduate students, and most of them are offered also during other quarters of the academic year.

Students interested in the marine science program should visit the St. Petersburg Campus facilities and discuss their interests with the director of the Marine Science Institute.

While offering many of the characteristics of a small college, the St. Petersburg Campus still has the advantages of all the resources of a major university. Its development is expected to keep pace with the continuing expansion of the Tampa Bay area.

Internal Organization

The University is organized internally in five colleges, with supporting services designed for this basic pattern. The five colleges are: Basic Studies, in which all freshmen and sophomores enroll and from which a minimum of six courses must be taken during the first two or three years; Business Administration, which offers majors in such fields as economics, accounting, management, marketing, and office administration; Education, which provides teacher training in all major teaching fields; Engineering, organized around systems design, research, and operation; and Liberal Arts, which offers programs in the areas of fine arts, natural sciences, social sciences, and languages and literature. Colleges of Medicine and Nursing have been authorized for the University. Detailed planning is now under way.

Bachelor's degrees are offered in many fields by all the University's colleges. Master's degrees are offered in several areas of business, education, engineering, and liberal arts.

The University's first Ph.D. program, in Biology with emphasis on Marine Biology, began operation during 1968. It is being conducted cooperatively by the Departments of Zoology and Botany and the Marine Sciences Institute.

The University's teaching faculty, numbering more than 700, represents all major areas of higher learning, and nearly 60 per cent hold doctoral degrees.

For administrative purposes, the University is organized into the three broad areas of academic affairs, student affairs, and administration and business affairs. The administrative officers who head these three units serve with the President in the Executive Committee, the principal policymaking and advisory body of the University. The President is responsible to the Board of Regents for internal policy and procedure of the University. In addition to the Executive Committee, advise and assistance to the President in the determination of policy is given by the University Senate, comprising elected representatives from all areas of the University community, including the student body.
The University of South Florida Foundation is a non-profit corporation functioning solely to provide supplemental funds for the University. These contributions are used for student aid, cultural events, library, research, guest lecturers and other areas needing support. All gifts and bequests to the University should be made through the Foundation. Membership in the Foundation is open to all friends, parents, and students interested in the dynamic growth of the University of South Florida.

Contact the Foundation office, or the Director of Development if considering membership or a gift.

The Foundation is headquarters of the Alumni Association, which was organized in December, 1963, upon graduation of the first class.

Purposes and Goals

A university is defined as an institution of higher learning consisting of several schools or colleges and offering programs in the liberal arts as well as in a number of professional areas. It is, however, more than this; it is a place where new knowledge is sought, and old knowledge is synthesized in new ways through research and scholarship for the benefit of mankind.

It is not, however, a trade school where the detailed techniques of a trade can be learned by practice. It deals with professional areas more in theory than in practice, providing the broad background and understanding necessary to the development of specific skills. In this way it develops the intellectual judgments necessary to deal with constantly changing problems of a profession.

A university should not be regarded simply as a place to prepare for a profession, important as this may be. One of the most important functions is to provide all its students with a better understanding of life in a rapidly changing world. Man is surrounded by a natural environment and confronted by rapidly increasing knowledge of that environment. These are matters of human affairs which he needs to know about as an educated citizen and as a professional person. Hence, a university has an important obligation to provide in its educational program for all students those common elements which make for more responsible and responsive living.

A university is also a servant of the society which supports it, and at the same time it is one of the leaders of that society. It is the medium through which the greatest wisdom of the past and the living spirit of the present are passed on to new generations of young people to be used by them as leaders in the further advances of society toward goals of better and finer living.

In the classroom, subjects are dealt with objectively, critically, analytically and constructively, as well as inspirationally and creatively. The student is expected to learn to be analytical as well as creative in his own approach and to understand that such activities, to be constructive, must be carried out with a minimum of emotional bias and prejudice. He must learn to understand that in a democracy points of view will differ and there may be no wholly right or wrong answers to many questions, only better or worse answers from the viewpoint of society or the individual. He must be prepared to examine
objectively his own position on such matters and develop for himself a tenable position or philosophy with which he can continue to live.

The University of South Florida, in trying to attain this character, has set up for itself the primary goal of placing "Accent on Learning" as its most important reason for being. Toward that end, the University has these specific objectives:

I. To provide the citizens of Florida with an outstanding public institution of higher learning, giving leadership and service in the intellectual, cultural, economic and scientific interests of the state.

II. To create a community of scholars dedicated to teamwork in the search for truth, the exchange of ideas and the establishment of high standards of intellectual inquiry and creative activity.

The faculty has been carefully chosen for its training, competence and ability to teach. In an unusual sense it is a team. The faculty has many times shown its outstanding ability to carry on creative work and significant research and to provide opportunities for able students to learn the meaning of, and assist in, such work as part of the process of education.

III. To provide opportunity for the development and training of the mind which promotes maturity, objectivity and creativity.

All degree programs of the University are designed to promote the following general aims for all students: (1) the necessary skills in writing, speaking, reading and listening; (2) self-reliance through the ability to think clearly; (3) understanding of oneself and one's relationship to others; (4) growing convictions based on the search for truth; (5) understanding and appreciation of our cultural, social, scientific and spiritual heritage; (6) intelligent approach to local, national and world problems leading to good citizenship and leadership in life; (7) some practical understanding of another language; (8) professional competence based on high ethical standards; and (9) healthful development of the body.

IV. To provide a broad cultural and basic educational pattern for all students, together with programs of liberal, pre-professional and professional studies, and to supplement these with opportunities for independent development and work experience.

Recent studies indicate a strong trend in American liberal arts colleges toward the inclusion of more professional preparation in their programs and, conversely, for the professional colleges to include more general and liberal studies in theirs. Thus, the professional and the liberal arts colleges are coming closer together in the effort to provide a continuum of studies which includes the general, the liberal and the professional in the same program. The University of South Florida is attempting this in a way that provides greater unity of knowledge for the student.

For each student the educational program combines preparation in basic studies with work in the liberal arts and the sciences and with professional studies. Ideally, a student's program will be devoted about one-third to basic studies, one-third to professional studies and one-third to elective and related choices.
A LOOK AT THE FUTURE

The University of South Florida's location in the large and expanding Tampa Bay metropolitan area, coupled with the broad growth and development of Florida in the space age, suggests a future of rapid change and expansion for the University. It is estimated that enrollment in University of South Florida courses will increase approximately 10 to 15 percent each year through 1975. Construction will continue at a rapid pace each year for several years to come. The physical plant of the University is valued above $50 million, and the major portion of the campus is still unused. New faculty are joining the University staff at a steady rate. In every respect, the University of South Florida is a vital part of the state's inevitable growth, and it is destined to become a large, multi-purpose university.
ADMISSION

The University of South Florida requires definite ability and competency on the part of students. Those having these abilities and skills and who are seriously interested in earning an education can expect to succeed in college. Students who lack them are almost sure to encounter serious difficulty. Until such students have corrected some of their academic deficiencies by private study, review work in high school, or perhaps study in a junior college, they may not be accepted.

Whether or not students have a reasonable possibility of being admitted to and succeeding in the University will be appraised by the Director of Admissions. He will admit students who meet the formal requirements of the University for admission. He will suggest other possibilities to those who do not. He will refer borderline decisions to the University Committee on Academic Standards. This committee’s decisions will be final.

The University requires a medical examination from each full-fee paying student to be filed with the Student Health Service. Full-fee students must also have had recent immunizations against smallpox, tetanus and polio. The University may refuse admission to a student whose record shows previous misconduct not in the best interest of citizens of the University community.

A student from a non-accredited or disaccredited Florida secondary school may be admitted provided he meets all of the requirements for students from accredited Florida secondary schools and, in the judgment of the Academic Standards Committee, can be expected to do successful academic work.

APPLICATION, REGISTRATION, AND PAYMENT OF FEES

A. Regular Students: those taking one or more courses.
1. The University of South Florida reserves the right to review all credentials of any student before he becomes a degree candidate.
2. The deadline for receiving applications for admission or re-admission to any quarter is listed in the Academic Calendar.
3. Registration will be completed in person by appointment during the regular scheduled registration period. Each quarter, this registration period will conform to the established university calendar and will consist of a period of at least two (2) days. Late registrations are not accepted except in most unusual circumstances. These exceptions must be on waivers submitted by the Dean
of the appropriate college and approved by the Assistant Dean of Academic Affairs.

Changes of class registration will be accepted only during the time and day(s) announced in the individual quarter term schedule. Any regular University student wishing to simultaneously enroll in off-campus or evening classes shall register and pay fees in the manner prescribed for regular students attending campus daytime classes.

Payment of Fees. Registration fees are due, by mail or in person, by the close of business on the last day of registration prior to the first day of class in any quarter. Any fees paid after that date must be accompanied by an additional twenty-five dollar ($25.00) penalty payment.

Late payment of fees, including the penalty payment, will only be accepted during the first three (3) regular class days of any quarter. Fee payments may be made in advance of final complete registration. A student has eligibility for a partial refund of fees upon withdrawal from the University only during the first three (3) regular class days in any quarter.

No late payment of fees, with or without penalty payment, will be accepted, and no refund of fees will be made to any student after the close of business on the third regular class day in a quarter. Registration will be cancelled for any student who has not paid his fees in full by the close of business on the third regular class day in a quarter.

B. Continuing Education Students: Those non-degree seeking students registering only for courses off-campus.

1. Application, registration, and payment of fees must be postmarked no later than four calendar days after the first day of on-campus classes.

**Procedures for Applying**

Application papers may be requested as early as 12 months prior to anticipated enrollment. Most of the secondary schools in Florida have application forms. Public school teachers wishing courses for certificate extension and other non-degree seeking students who feel that they fall into a special category should indicate the category in their initial inquiry.

There are definite advantages in applying early. Housing priority is explained elsewhere in the catalog. Each quarter has its own application deadline, usually at least three weeks prior to the first day of registration. The application will be acknowledged and qualified students will be accepted. Final decisions will be made upon receipt of test scores and evidence of completion of high school work, or upon the arrival of the final college transcript. The candidate will be notified if he was not previously apprised of a tentative decision or if the tentative decision must be reversed.

All academic records must be mailed to the Director of Admissions, University of South Florida, directly from the appropriate institution (i.e., high school record from high school attended; college record from each college attended; G.E.D. test scores from appropriate high school or State Department of Education; U.S.A.F.I. scores from Madison, Wisconsin; S.A.T.
scores from high school or central office). The student has the responsibility of getting the records mailed to the University from each school attended.

A student who applies and does not enroll must notify us during the month of the original planned date of entry if he wishes his application changed to a future date of entry. Otherwise, new application forms must be completed and the application fee paid again.

All applicants must enter their social security number on the application. All applications will be returned to the applicant unless the student includes his social security number.

**ADMISSION TO THE UNIVERSITY**

**FRESHMEN**

It is recommended that all prospective freshmen who wish to be admitted to the University of South Florida earn at least 14 high school units in the areas of English, mathematics, foreign languages, social studies, and natural sciences.

Freshmen enter the University from four principal sources, and special qualifications are established for each. Borderline students are urged to begin in June rather than waiting until September.

The four sources are:

1. Graduates of Florida high schools, who must have a favorable character recommendation from officials of their high school, must have an overall average of “C” or better in all academic subjects and must earn a minimum score of 300 on the Florida State-Wide Twelfth Grade Tests.
2. Graduates of high schools outside Florida, who must have a favorable character recommendation from officials of their high school, must have grades placing them in the upper 40 per cent of their graduating class and must have acceptable test scores (examples: 900 or higher on the Scholastic Aptitude Test—450 or higher on the verbal portion).
3. High school graduates by Armed Forces Tests of General Education Development (G.E.D.) must have an acceptable high school record for the portion attended and must have a minimum individual score (percentile) of 50 and a minimum average of 60 on the G.E.D. test.

University Center
4. Early applicants, who wish to enroll prior to high school graduation, must have outstanding high school records (minimum average of 3.5 or B+), must show high performance on tests such as the College Qualification Test and must score a minimum of 425 on the Florida State-Wide Twelfth Grade Tests. Early applicants are interviewed by a number of University officials and are comprehensively tested before their applications are approved.

TRANSFER STUDENTS

Degree-seeking students wishing to transfer to the University must have a minimum average of "C" for all college work previously attempted and must be eligible to return to the last institution in which they were enrolled. Those with less than 90 quarter hours of transferable college credit must also meet the University’s freshmen entrance requirements. Out-of-state students must have a Confidential Personal Student Questionnaire completed before admission to the University.

After a prospective transfer student has applied to the University and all official records are received directly from each institution involved, his records are evaluated to determine how many of his credits are transferable. Only work in which the student has earned a grade of "C" or better may be transferred. Credit will not be awarded for college level G.E.D. tests, for basic R.O.T.C., military science, nor for courses given credit without a grade such as "Orientation."

Final applicability of transferred credits toward graduation requirements will be determined by the college in which the student majors.

The final 90 quarter hours of work taken for the bachelor's degree must be earned in a senior institution. A maximum of 45 quarter hours of extension and correspondence courses, Armed Forces credit and the college level examination program credits can be applied toward a degree.

Service school courses will be evaluated with reference to the recommendation of the American Council on Education when official credentials have been presented. Such recommendation, however, is not binding upon the University. The applicant must apply for service school credit during his first term in residence at the University.

A transfer student from a state-operated junior college or university may satisfy the basic studies requirements of the University of South Florida by completing (before transfer) the general education program prescribed by that junior college or university. Graduation for those attending a junior college is recommended. Students' general education programs in private colleges and out-of-state schools, and students with incomplete general education programs from state institutions will be evaluated on an individual basis.

Graduates of accredited junior colleges are not required to take additional work in physical education.

Students already graduated from accredited four-year institutions who apply for admission to work toward another undergraduate degree must meet the University's regular graduation requirements. A minimum of 45 quarter hours must be earned in on-campus courses and the student must meet the requirements for liberal education and for major concentration as specified by his departmental adviser and dean.
TRANSIENT STUDENTS

A student interested in enrolling at the University of South Florida for a summer session or for one term only before returning to his parent institution should request transient application papers. A statement of good standing and of the acceptability of credits is required from the parent institution. Out-of-state students must have a Confidential Personal Student Questionnaire completed before admission to the University.

MATURE (NON-DEGREE) STUDENT

Mature persons (21 or older) may, by providing evidence (a. an acceptable high school record; or b. acceptable test scores; or c. an acceptable recommendation) that they are qualified to do the proposed work, enroll as non-degree students—in day classes or in the evening sessions—without meeting the requirements established for degree programs. They may transfer to degree programs later if their work as non-degree students indicates the likelihood of success. Work taken for credit as a non-degree student may later be counted toward a degree program if such work is applicable and of satisfactory grade. Persons under 21 years of age wishing to enter as non-degree students must meet the same admission requirements as degree-seeking students. Mature students are not required to take Physical Education.

CHANGE OF DEGREE STATUS

Non-degree seeking students who wish to change to a degree-seeking status must first meet the degree-seeking admission requirements or earn a minimum of 15 quarter hours with a minimum average of 2.0 (C).

EVENING SESSION STUDENTS

While serving degree-seeking and non-degree seeking students, the Evening Sessions of the University of South Florida offer only courses for full academic credit. Any student accepted as a candidate for a degree may enroll in courses offered in the evening which are appropriate to his program. The admissions requirements and achievement levels in the day courses and in the evening sessions are the same.

SPECIAL CONSIDERATION

Freshmen or transfers with above average ability who do not meet all the aforementioned requirements may apply for special consideration. The application, accompanied by a full letter of explanation and supporting information, should be mailed to the Academic Standards Committee. It should be noted, however, that the regular guidelines are regarded as sound for the student and for the institution. Few exceptions are made.

Whenever a student is admitted after special consideration, he will usually be placed on Academic Warning or Final Academic Warning; therefore, he should be familiar with the meaning of these terms which are described on page 23.
GRADUATE STUDENTS

Admission requirements for graduate students are given in the section entitled Graduate Study, page 130. Graduate applicants should also refer to descriptions of the master's degree programs for specific admission requirements.

REAPPLICATION

All students not restricted for future registrations because of academic or social problems will have registration appointments and materials prepared for them for the two subsequent quarters which immediately follow their last enrollment here. If a student wishes to re-enroll in USF after having missed two (2) or more consecutive quarters, the registration status of that student will be Former Student Returning which means he must submit application papers for re-admission, observing the application deadline.

All students who withdraw while on "Final Academic Warning" must secure the approval of the Academic Standards Committee before they can register for a subsequent quarter. Also, any student who withdraws twice from the University after January 1, 1966, must petition the Academic Standards Committee before he can reapply.

Orientation and Enrollment Program

At the beginning of each quarter, prior to the beginning of classes, all new students are expected to participate in the Orientation and Enrollment program of the University. This program is designed to help new students become acquainted with the university procedures and regulations and to learn of the University’s expectations of its students. Those sessions which are information-gathering are necessary for enrollment, and those that are information-giving are considered the orientation aspect of the program.
ACADEMIC POLICIES AND PROCEDURES

The University is concerned that each student make reasonable progress toward his educational goal, and will aid each student through guidance and faculty advising. Whenever this progress is hindered, blocked or interrupted, the University will, through additional guidance, special counseling or restrictions on the student's activities, aid the student to resume satisfactory advancement. He may be required to leave the University for a period sufficient to gain adequate maturity and motivation.

To be in satisfactory academic standing at the University a student must be properly admitted and be matriculated for a degree or have qualified as a special student and normally hold a cumulative grade point ratio of 2.0. The precise averages for good standing are described below. Falling below these points should suggest to the student that he must change his pattern of work to restore himself to a satisfactory status.

Any student is not in good standing whenever his cumulative grade point ratio falls below 1.5 and his attempted hours are less than 45, or below 1.7 when his attempted hours are between 45 and 89, or below 2.0 when he has attempted more than 89 credit hours. Such a situation occurs generally because the student lacks the maturity, diligence, or motivation to realize the necessity for adequate scholarly effort. Whenever a student falls into this status, he will be placed on Probation and a notification to this effect will be sent to him and his permanent record will be posted accordingly. For a complete description of the probation rules, see next page. The student will be required to meet with his faculty adviser for additional assistance in identifying and correcting his difficulties.

A transfer student who was not in good standing at his prior institution but who for special reasons has been admitted to the University will be placed immediately on Probation for a trial period.

All students who do not raise their grade point ratio to a level of good standing within the quarter in residence after being placed on Academic Warning shall be placed on Final Academic Warning.

Whenever a student is placed on Final Academic Warning, a notification of this will be sent to the student's parents or guardian unless the student is 21 years of age or older and is living independently of his parent or guardian. The student will be required to meet with his faculty adviser for additional assistance, and must forego holding any executive or committee office in any
student or campus organization, and forego participation in any student activity or organization which represents the University. The permanent academic record of the student's progress will show that he was placed on Final Academic Warning; and he must earn at least a 2.0 average, regardless of credit hours attempted, during the next quarter in residence. Failure to do so implies that the student has disqualified himself from continuous attendance at the University and that he must wait at least one full quarter before becoming eligible to be considered by the Academic Standards Committee for readmission to the University. Any student who withdraws from the University while on Final Academic Warning must petition and secure approval of the Academic Standards Committee to re-enter the University.

The Academic Standards Committee meets regularly to review petitions submitted by students to waive certain academic regulations. Students must petition and secure approval of the Committee to return to the University after having been disqualified from further immediate attendance or for reasons pertaining to admission, registration or other academic policies and procedures.

PROBATION—DISQUALIFICATION AND READMISSION

A student is not in good standing whenever his cumulative Grade Point Ratio falls—

- **Below 1.500** and his attempted quarter hours are less than 45;
- **Below 1.700** and his attempted quarter hours are between 45 and 89.

Whenever a student falls into one of the above categories he will be placed on **Academic Warning**. All students on **Academic Warning** who do not raise their cumulative Grade Point Ratio to a level of good standing, as indicated above, within the term enrolled after being placed on Academic Warning will be placed on **Final Academic Warning**.

- **Below 2.000** and his attempted quarter hours are more than 89.

Whenever a student falls into the above category he will be placed on **Final Academic Warning**. A student on **Final Academic Warning** must earn at least a 2.000 average during the next term enrolled. Failure to do so will disqualify the student from continued attendance at the University of South Florida. If a student withdraws while on Final Academic Warning, he must petition and secure approval of the Academic Standards Committee for re-entry.

- **Below 2.000** and his attempted quarter hours are more than 135.

Whenever a student falls into the above category he will be automatically disqualified.

A student who fails to have a 2.000 cumulative Grade Point Ratio after attempting 135 quarter hours is automatically disqualified. A disqualified student must petition and secure approval of the Academic Standards Committee before readmission. Normally, one full quarter must pass before such a petition will be considered. **This rule overrides all others.**

Any student who is readmitted to the University following Disqualification will be placed immediately on a **Final Academic Warning** status. This does not apply to a student who has received a degree in a college parallel program from a Florida state junior college.

A disqualified student seeking to gain readmission must apply to the Academic Standards Committee through the Office of the Registrar.
If the student attends another college or university during this intervening period, he will be classified as a transfer student and his admission will be based on his total educational record. In rare and exceptional cases a disqualified student may petition the Academic Standards Committee for earlier readmission when it can be clearly demonstrated that circumstances beyond the student's control accounted for his academic problems.

**PENDING**

A student may be placed on "Pending" by failing to meet obligations to the University. When a student is on Pending, he may not be allowed to register, graduate, receive a final grade report, nor request a transcript. Settlement of financial accounts must be made at the University Cashier's Office.

The administration of the system of Academic Warning status, Final Academic Warning status, academic disqualification and pending is the responsibility of the Assistant Dean for Academic Affairs. He will work closely with other University officials and faculty advisers in these matters.

Students having questions or problems about these matters should go either to their adviser, the Assistant Dean for Academic Affairs or the dean of the college in which they are enrolled.

Each student placed on Pending should determine from the Registrar's Office which office placed him on Pending and clear the pending obligation with that office.

**ADDS**

After a student has completed his registration on the date assigned to him, he may add courses only during the time and day(s) announced in the individual quarter term schedule.

**AUDITS**

If a student wishes to audit a course, he must obtain written permission from the instructor of the course and section in which he wishes to enroll. Audit forms must be obtained from the Registrar's Office and completed prior to registration. The student must also contact and consult with the instructor concerning just what is expected of an audit in his class. If permission is granted, the audit forms must be presented to the Registration Approval Clerk after a regular class and section card has been obtained. This will insure the student a place in the class even though no credit will be given. The student must pay the regular registration fee for audit courses.

**WITHDRAWALS (Prior to first day of classes)**

If, after completing his registration, a student wishes to cancel it, he may do so by completing a Withdrawal Form in the Registrar's Office, and will receive a complete refund of registration fees. Students desiring to withdraw from USF prior to, during or after the first day of classes begin by consulting with their advisers.

**COURSE WAIVERS**

See information under College of Basic Studies.
DROPS

For the first four weeks of any term a student may drop a course or courses without penalty (he will receive a grade of “W”)—and without any consultation with the instructor—only by completing and turning in a “Drop” slip at the Registrar’s Office. Any course drop after the first four weeks of classes will result in a grade of “F.”

WITHDRAWALS

Until four weeks before the last day of the term any student may withdraw from the University without penalty. After that date grades of “F” will automatically be assigned for all course work. If the student is on Conditional Registration or Final Academic Warning and withdraws from the University, it will be necessary for him to petition and secure the approval of the Academic Standards Committee before being readmitted.

Following a second withdrawal from the University there will be posted on the student’s record “ineligible to return, must petition the Academic Standards Committee for readmission.” This does not affect existing regulations concerning withdrawal while on Final Academic Warning.

CLASS STANDING

A student’s class is determined by the number of credits he has earned without relation to his grade point ratio:

0 Non-degree holder and non-degree seeking
1 Freshman Through 44 credit hours
2 Sophomore 45 through 89 credit hours
3 Junior 90 through 134 credit hours
4 Senior 135 or more credit hours
5 Degree holder who filed undergraduate application papers
6 Graduate students, degree and non-degree seeking
7 Graduate students admitted to candidacy for Master’s degree
8 Graduate students with a Master’s degree
9 Graduate students admitted to candidacy for doctoral degree

The classification of Non-Degree Student is given to those who are not enrolled in a program leading to a degree. Non-Degree Students who accumulate 45 or more hours are advised to enroll for a degree program.

ADMISSION TO THE UPPER LEVEL

Qualified transfer students will be admitted to an upper level college by the Admissions Office.

Courses and programs offered at the junior and senior levels are generally considered to be “upper level.”

Generally, a student enrolled in the College of Basic Studies will be eligible for admission to an upper level college when he has completed the lower division requirements of the College of Basic Studies, taken a comprehensive examination some time during his sophomore year, satisfied the physical education requirements, and completed at least 90 quarter hours with at least a 2.0 ratio. A student with 81 hours and a ratio of 2.0 or better may be admitted with special permission of the dean of the college involved. Quali-
fied students will be identified and referred to an upper level program by a member of the College of Basic Studies advising corps.

In addition, students must meet the specific admission requirements of the college to which they are applying. These requirements are shown elsewhere in this catalog and should be verified with the college before application is made.

Students transferring into upper level college programs from other institutions must meet the same standards and requirements as those whose first two years were taken at the University of South Florida.

All students must complete at least the last 45 hours of their undergraduate credit in on-campus courses (after having been accepted to an upper level program) to qualify for a University of South Florida degree.

DOUBLE MAJOR

Students may elect to graduate with two majors in disciplines within the same division, the same college, or in more than one division or college. In that event, the student should meet all requirements of each major separately. He must apply independently and be assigned an adviser in each discipline. He must be certified for graduation by the appropriate dean or divisional director for each major.

CHANGE OF MAJOR

Any student in the upper level who wishes to change his major must obtain the Change of Major form in the Registrar’s Office. This form must be signed by the student’s adviser, the dean or director of the former major, and the dean or director of the new major. A copy of the completed Change of Major form must be returned to the Registrar’s Office.

APPLICATION FOR GRADUATION

Each student who plans to complete his graduation requirements by the end of a term must pay the $10 graduation fee and complete the Application for Graduation no later than the first day of the fourth week of that term. The application is available at, and after completion must be returned to, the Registrar’s Office.

Graduation Requirements

While each college sets specific requirements for graduation, the general University requirements must be met by every student upon whom a degree is conferred.

These general requirements specify that a student must attempt and pass at least 180 quarter hours of credit with at least a “C” average for all University of South Florida courses attempted in order to be eligible for graduation. At least 60 of his quarter hours must be for upper division level work (courses numbered 300 or above). The hours for a course which has been repeated may be counted only one time toward this minimum requirement of 180 quarter hours of credit.
In addition to specific requirements of their major and of the college in which they are enrolled, candidates for graduation must also pass the senior seminar offered by the College of Basic Studies, and be recommended for graduation by the dean of their college.

All students must complete at least the last 45 hours of their undergraduate credit in on-campus courses after having been admitted to an upper level college to qualify for a University of South Florida baccalaureate degree. Approved exchange program students may take courses off-campus which will be considered as on-campus courses.

Also, Cooperative Education students, while on their training periods, will have any work taken at other institutions (approval having been given by USF advisers and other appropriate personnel) counted as residence work.

If changes are made in major or graduation requirements during the time a student is enrolled in the University, the student has the choice of being graduated under either the old or the new requirements.

While every effort will be made to give each student appropriate advice in meeting major and graduation requirements, the final responsibility for meeting these rests with the student. He should study the catalog carefully and seek advice when in doubt. In any case, he should check with his dean or divisional office when he has reached 135 quarter hours to make sure that his program plans are complete.

Specific requirements of the several colleges are listed under their respective sections.

GRADUATION WITH HONORS

Each student graduating with a baccalaureate degree from the University with a grade point ratio earned at USF of 3.5 or higher will receive a special notation on his diploma indicating that he has been graduated with honors.

In addition to the above, transfer students must have a grade point ratio when combined with previously attempted college work of 3.5 or above.

Availability of Courses and Programs

The University does not commit itself to offer all of the courses, programs and majors listed in this catalog unless there is sufficient demand to justify them. Some courses, for example, may be offered only in alternate quarters or years, or even less frequently if there is little demand. Some of the less popular majors may not become available until later in the University's development. Students wishing such majors may take what is offered here and major in some closely related field or transfer to an institution which offers the desired program.

Notice of Change

Notifications regarding change of address can be made only at the time of registration. Other changes: change of name, change in marital status, change in residency, and change of citizenship should be filed promptly with the Registrar's Office.
Florida College Exchange

Through an exchange agreement, students of the University of South Florida, with the approval of their advisers, may elect courses in Greek, Hebrew, Bible, or religious education at nearby Florida College. Credit for acceptable work may be transferred to the University and counted as elective credit toward graduation. Students from Florida College have a similar transfer arrangement.

Costs for students under these dual enrollment plans are based on credit hours of work taken, and payment is made to the appropriate institution in accordance with its per-hour fee rate.

The Traveling Scholar Program

The University System of the State of Florida has a Traveling Scholar program which will enable a graduate student to take advantage of special resources available on another campus but not available on his own campus: special course offerings, research opportunities, unique laboratories, and library collections.

PROCEDURE

A traveling scholar is a graduate student who, by mutual agreement of the appropriate academic authorities in both the sponsoring and hosting institutions, receives a waiver of admission requirements and the application fee of the host institution and a guarantee of acceptance of earned resident credits by the sponsoring institution.

A traveling scholar must be recommended by his own graduate adviser, who will initiate a visiting arrangement with the appropriate faculty member at the host institution.

After agreement by the student’s adviser and the faculty member at the host institution, graduate deans at both institutions will be fully informed by the adviser and have the authority to approve or disapprove the academic arrangement.

A student will register at the host institution and will pay tuition and/or registration fees according to fee schedules established at that institution.

CONDITIONS

Each university retains its full right to accept or reject any student who wishes to study under its auspices.

Traveling scholars will normally be limited to one term (semester, trimester, quarter, etc.) on the campus of the host university.

Traveling scholars are not entitled to displacement allowance, mileage, or per diem payments. The sponsoring institution, however, may, at its option, continue its financial support of the traveling scholar in the form of fellowships or graduate assistantships, with any work obligation to be discharged either at the sponsoring or host institution.
Intra-American Exchange Program

Through a reciprocal exchange agreement, University of South Florida students may study for one academic year at the University of Massachusetts in Amherst, Massachusetts. Exchange students are selected in the spring (third) quarter preceding the exchange year. Acceptable grades are transferred to the University of South Florida and counted as credit toward graduation. University of Massachusetts students enjoy the same exchange opportunity.

Student costs remain essentially the same, but students must pay transportation costs to and from the exchange institution. Further information may be obtained from the Office of the Dean, College of Education, University of South Florida.

Future plans call for expanding the program to include institutions throughout the United States.

Selective Service

The Selective Service System requires the University to submit, for each male student who has a selective service number on file at the University, an Enrollment Certificate to local draft boards for every full-time male undergraduate and graduate student at the time he is first enrolled and yearly thereafter. This report is required on all undergraduate male students between the ages of 18 and 25.

Note: Undergraduate students must enroll for at least 12 quarter hours to be considered full-time. The Selective Service System requires the completion of 45 quarter hours each academic year. Graduate students must enroll for 9 quarter hours to be considered full time.

Students desiring further information or needing additional Selective Service certification should request this from the Registrar’s Office.

Veterans Administration

The University of South Florida is approved by the Veterans Administration for the education and training of G.I. Bill beneficiaries. As of December 1, 1968, the beneficiaries were greatly expanded to include widows of servicemen, and in some cases persons may receive benefits from more than one grant. Even though the Registrar’s Office is the certifying office for these beneficiaries, all students eligible for benefits should contact their nearest Veterans Administration Regional Office for information and counseling. Enrolled students may contact the Veterans Administration Regional Office, P. O. Box 1437, St. Petersburg, Florida 33731, even though they do not come under this Region.

Note: To be considered a full-time student by the Veterans Administration an undergraduate student must schedule a minimum of 14 quarter hours each term and a graduate student must schedule a minimum of 9 quarter hours.
Social Security

The Social Security Administration requires the University to submit an enrollment certificate for students between the ages of 18 and 22 receiving educational benefits under the Social Security Act. Students receiving these benefits must be and remain full-time students. Students must enroll for 12 quarter hours to receive full-time benefits.

Inquiries relating to Social Security benefits should be addressed to the student's local Social Security office.

Academic Advising

At the University of South Florida, academic advising is the province of the teaching faculty. It is thus an extension of the teaching function—a conscious concern for the academic and educational questions that most students have about the importance of their studies, the proper direction of their educational development, and the practical values of their educational objective.

Since the beginning student generally is in greater need of advice and guidance, a selected corps of advisers serves students who are registered in the College of Basic Studies. Members of the advising corps are faculty members who are relieved of some teaching responsibility in order to devote relatively more time to student advising. Faculty members participating in the program represent all of the colleges and divisions of the University and are chosen because of their interest and experience in curricular advising. The advising program in the College of Basic Studies is designed to provide students during their first two years with whatever assistance is necessary in order to move them toward their educational goals in a timely fashion. Coordination of the advising program for students enrolled in the College of Basic Studies is the responsibility of the Coordinator of Student Advising under the dean of that college.

Students entering the upper level programs, usually at the beginning of the junior year, are assigned to an adviser in their major field. Curricular advising in the upper level programs is the responsibility of the associate deans in the College of Liberal Arts and of the coordinators designated by the respective deans in the Colleges of Business Administration, Education, and Engineering.

All degree-seeking students entering the University are urged to participate in a two-day orientation conference, at which time they meet with an adviser in their proposed field of study to prepare a schedule of courses. Prior to this meeting, advisers are provided with pertinent information, such as admission data and test scores, concerning each student. During the orientation conference, or shortly after the beginning of classes, the new student is assigned to a specific adviser in accordance with his stated educational objective.

A student is expected to meet at least once each term with his adviser for purposes of program planning. However, he is encouraged to visit his adviser whenever he feels in need of help with academic or personal problems. Although the adviser is essentially a resource person for assistance with
academic and curricular matters, he can often refer the student to a source of specialized help when the problem is one with which he is not qualified to deal.

Although it is not necessary for a student to have a specific educational goal in mind at the time he enters the University, he should discuss with his adviser any general educational objective he might have at their first meeting. Some courses of study require enrollment in key courses during the first year if the student is not to lose time in his work toward a degree. Both engineering and the medical sciences are curricula which illustrate this point.

Provisions are made to permit a change of adviser when it appears to be in the best educational interests of the student. A change of educational objective is the most common reason for reassignment, but reassignment may be made at any time the student or adviser believes a change is desirable.

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

SPECIAL ACADEMIC FEATURES

The University of South Florida seeks to achieve its objectives not only through its formally organized colleges and courses but also through certain special services. These are programs or activities which clearly are designed to enhance the education of students but do so through means other than orthodox courses and classes. Many of these do not even offer academic credit, although some may be means by which students do earn credits. Regardless of whether or not these activities count toward the definite graduation requirements, they can be tremendously significant in the lives of students who participate in them.

One of the special programs within the academic area of the University is the Cooperative Education Program whereby students may blend the theory of the classroom with experience in the outside world, the world of reality. (See section on Cooperative Education Program)

CREDIT BY EXAMINATION

Students may apply to take lower division basic studies courses by Credit by Examination. If the application is approved and presented at registration, they take the final examination near the end of the term. Those making "B" or higher on the examination will receive college credit for the course. Those making "C" are still eligible for waiver but without credit. Those making "D" or lower lose the waiver privilege and must take the course in class or use the course as one of the two authorized omissions. Students who have completed more than two college courses in the field of study concerned may not earn credit by examination; however, they may take the examination and secure a waiver by scoring a "C" or higher. Note: The regular "incomplete grade" regulations apply to all courses scheduled through the credit by examination procedure.
INDEPENDENT STUDY

Students wishing to take a course by independent study must contact the instructor of the course and complete a written contract. This contract specifies the requirements to be completed by the student including tests, periodic class attendance, term papers, etc. If the course is in the College of Basic Studies, approval for independent study may be given by the course chairman. A copy of the contract is to be sent to the Coordinator of Independent Study.

Not all courses in the University can be taken by independent study. The respective colleges have jurisdiction in the determination of which courses may be taken in this manner.

The regular grading system applies to all independent study students. Grades earned by independent study have the same status as those acquired through regular class attendance. Students taking a course by independent study must register for the course in the regular manner and for a specific section.

ADVANCED PLACEMENT-CREDIT PROGRAM

The University of South Florida participates in the Advanced Placement Program conducted by the College Entrance Examination Board, which provides 13 college-level advanced placement examinations in American history, biology, chemistry, English, European history, French, intermediate German, advanced German, Latin IV, Latin V, mathematics, physics, and Spanish. Examinations in Russian are being added.

Examination papers are graded by selected committees on a five-point scale: 5—high honors, 4—honors, 3—good, 2—credit, 1—no credit.

The University allows automatic advanced placement credit for scores of 3, 4 and 5, and allows advanced placement with or without credit for scores of 2, upon recommendation of the program concerned.

Credit may be applied to basic studies courses where appropriate, or to comparable liberal arts courses as best fits the needs of the student.

Participation in this advanced placement program does not affect the University's regulations concerning waiver, credit by examination, independent study, or other provisions for the advanced placement of qualified students.

ADVANCED PLACEMENT-NON-CREDIT PROGRAM

Frequently a superior student, particularly in the fields of science and mathematics, is allowed to enter advanced courses in those subjects. It is possible for students well trained in mathematics to enter calculus as freshmen. It is also possible for well trained students to enter physics or chemistry without having other college level science. Before permission is granted to do so, students are required to take a science and mathematics examination to determine whether or not they actually have the knowledge and competency to succeed in these advanced courses. This same procedure is applied to other subjects.

EXTRA LOADS

The normal load for full-time students ranges from 12 to 18 quarter hours each term. For most students seriously involved in study this is ample.
For some students, however, an overload is the best way for them to gain maximally from their college education. Registration for more than 18 credits requires approval of the dean or division director of the student's college. A first-quarter freshman is only rarely permitted to undertake more than 18 credits. Thereafter, permission may be granted if the student's grade point is 3.0 or higher. Freshmen and sophomores who wish to carry more than 18 credits should be referred to the Dean of the College of Basic Studies or to the Coordinator of Advising.

HONORS

The University of South Florida, emphasizing as it does solid academic achievement, is developing ways of recognizing distinguished student achievement. An Honors Convocation is held each fall quarter to recognize those students who have maintained a grade point ratio of 3.5 or better in 12 or more quarter hours attempted at USF in each of the three quarters of attendance within the academic year immediately preceding the Convocation. Cooperative Education students may substitute one training quarter for one of the three on-campus quarters.

The Gold Key honor society recognizes outstanding students.

DEANS LIST

Full-time undergraduate students who demonstrate superior academic achievement will be honored by qualifying for the "Deans List." The Dean of the College in which the student is majoring will award a certificate in recognition of this academic honor. Each degree-seeking undergraduate student will be recognized and honored after each quarter in which he demonstrates superior academic achievement.

COOPERATIVE EDUCATION PROGRAM

The Cooperative Education Program has as its objective a balanced education where occupational experience is an integral part of formal education, and theory is blended with practice. In addition to regular classroom and laboratory exercises, it acquaints the student with the world of work and a professional environment. Students become acquainted with professional skills while obtaining their academic training. The ultimate objective of the program is to bring business, industry and governmental agencies close to the educational program of the University and have the graduates absorbed into permanent employment of the Southeast's leading employers.

The Cooperative Education Program is particularly designed for recent high school graduates rather than older, more mature students with considerable work or professional experience. It also requires students of demonstrated academic ability. A student must have a minimum of 24 quarter hours of academic work completed with a grade point average of 2.0 or better before being assigned to an employer. The program is open to all students regardless of major, undergraduate and graduate as well.

Students transferring 24 or more hours of credit from another school are eligible immediately to enter this program.

All University of South Florida cooperative programs are approximately four years in length except in the field of engineering, which is approximately
a five-year program. Following two or more quarters on campus the student is assigned to a team and alternates between quarters of training (paid employment) and quarters of study until he reaches the senior level, when he returns to the campus to complete his academic requirements.

The University will assign students to training programs relevant to their educational and professional goals. Usually students are first placed on assignments where they can learn the fundamentals. They may then advance in the type of assignment from training period to training period.

Many types of enterprises have joined the University as cooperative employers. Those currently having cooperative programs and accepting University of South Florida students in these training programs include: public utilities, financial institutions, chemical plants, department stores, school systems, aircraft and automobile manufacturers, insurance firms, chemical, biological, and nuclear laboratories, and many governmental agencies including the U.S. Food and Drug Administration and the National Aeronautics and Space Administration. Six of NASA’s centers currently have University of South Florida students in their training programs.

Students are encouraged to make application for placement in the program during their first quarter on campus even though they must complete at least 24 hours of academic work before being assigned to an employer.

Once a student is accepted into the program, the training assignments become a part of his academic program leading to a degree. The student must remain on the alternating pattern of training and study until he reaches senior level or is released from the Cooperative Education Program by the director. Students signing an agreement covering training periods are obligated to fulfill their agreement.

Students who fail to report for a training period after signing an agreement, who fail to keep their agreement to remain with an employer to the end of a given training assignment, or who fail to remain in the program until they reach senior level, will not be permitted to register as full-time students during their next quarter on campus.

Cooperative Education students are encouraged to take one course during each training period. This may be a regular course taken by class attendance, by independent study, or credit by examination, at the University of South Florida or any other accredited college or university, a course by home study or correspondence, or a special problems course in an area appropriate to the student’s major interests. Most of these special problems courses at the University of South Florida carry a title of individual research and a course number of 400. They may be repeated and credit may vary from one to five hours per quarter for Cooperative Education students, the amount to be determined at the time of advising.

A special course is available for Cooperative Education students—CBS 400, Cooperative Education Research Report 1-5 credits. This course is designed specifically for Cooperative Education students in which the student pursues a research subject dealing with his training assignment and/or his major area of professional interest. The Cooperative Education student is assigned to a professor in his major field and will confer regularly with him on the subject, structure and content of the written research project. The findings of this project would be embodied in a written report. This course
may be used with designators other than CBS if approved by the dean and department head of the college and area concerned. Further information may be obtained in the Office of Cooperative Education.

The registration fee for the training period is $40.00 and, in general, covers the fee for one course up to five hours in value (see Cooperative Education Handbook for exceptions), student publications, use of the Library, Student Health Service, and all privileges enjoyed by other full-time students including the use of recreational facilities; golf course, etc. Transfer students are welcome to select the program and should make application during their first quarter at the University.

Employers who have working agreements with the University of South Florida and who have served as cooperative employers during the past year in the University's Cooperative Education Program include:

AETNA Life Insurance Co., Tampa
AETNA Surety & Casualty Co., Tampa
Alton Box Board Co., Jacksonville
Argonne National Laboratories, Argonne, Ill.
Babcock & Wilcox Co., St. Petersburg
The Boeing Co., Cocoa Beach, Fla.
Bonwit-Teller, New York, N. Y.
Bramlett Mfg. Corp., St. Petersburg
Britt's Dept. Store, Ft. Lauderdale
Swend A. Canaris Corp., Tampa
Chrysler Corp., New Orleans
Clerk of the Circuit Court, Tampa
Continental Baking Co., Tampa
Electronic Communications, Inc., St. Petersburg
Encephalitis Research Center, Tampa
Fairfield Hills Hospital, Newton, Conn.
First Federal Savings & Loan Assoc., St. Petersburg
Florida Power Corp., St. Petersburg
Florida Society for the Prevention of Blindness, Tampa
Florida State Road Dept., St. Petersburg
FMC Corp., Lakeland
Ford Motor Co., Atlanta, Ga., and Dearborn, Mich.
General Cable Corp., Tampa
General Electric Co., Cape Kennedy, St. Petersburg, Tampa and Rome, Ga.
Congressman Sam Gibbon's Office
Washington, D. C.
Goodyear Tire & Rubber Co., Akron, Ohio
Gulf Life Insurance Co., Jacksonville
Hillsborough Co. Dept. of Health, Tampa
City of Hollywood, Hollywood, Fla.
Honeywell, St. Petersburg
Hospital & Welfare Board, Tampa
International Business Machines, Inc., Cocoa Beach, Fla., and Huntsville, Ala.
International Minerals & Chemical Corp., Bartow, Fla.

Juvenile & Domestic Relations Court, Tampa
S. H. Kress, Tampa
Lockheed-Georgia Co., Marietta, Ga.
Manatee National Bank, Bradenton
Marine Data Center, Tampa
Marineland Research Laboratory, St. Augustine
Martin-Marietta Corp., Orlando
May-Cohens Department Store, Jacksonville
Miami Herald, Miami
Montanari Residential Treatment Center & Clinical Sch., Hialeah, Fla.
M. A. Montenegro & Co., Tampa
Carl H. Nelson, Inc., Tampa
New England Oyster House, Tampa
Pratt & Whitney Aircraft, West Palm Beach
Princeton-Pennsylvania Accelerator, Princeton, N.J.
Sarasota Memorial Hosp., Sarasota
Smith, Braley & Johnson, Tampa
Smith-Douglass Division - Borden Chemical Co., Plant City, Fla.
Southern Bell Telephone & Telegraph Co., Jacksonville
Standard Oil of Kentucky, Tampa
Supermarkets General Corp., Cranford, N.J.
City of Tampa Civil Service Comm., Tampa
City of Tampa, Comptroller's Office, Tampa
Tampa Electric Co., Tampa
Tampa General Hospital, Tampa
Tampa Ship Repair & Dry Dock, Inc., Tampa
The Tampa Times, Tampa
The Tampa Tribune, Tampa
TsegI Trading Post, Tonalia, Arizona
U. S. Phosphoric Prod., Tampa
Union Carbide Corp., Oak Ridge, Tenn.
Jim Walter Research Corp., St. Petersburg
Dr. Oswald Werner, Evanston, Ill.
Westinghouse Corp, Tampa

U. S. FEDERAL AGENCIES
Air Force Eastern Test Range, Patrick Air Force Base, Fla.
Bureau of Commercial Fisheries, Passacagoula, Miss., St. Petersburg Bch., Fla., and Miami, Fla.
Central Intelligence Agency, Washington, D. C.
Corps of Engineers, U. S. Dept. of the Army, Jacksonville, Fla., Tampa, Fla. and Atlanta, Ga.
Food & Drug Adm., Atlanta, Ga., Washington, D. C. and St. Louis, Mo.
General Services Adm., Atlanta, Ga. and Washington, D. C.
Internal Revenue Service, Tampa, Fla., Jacksonville, Fla., Miami, Fla. and Washington, D. C.
National Aeronautics & Space Administration, Hampton, Va., Greenbelt, Md., Cape Kennedy, Fla., Houston Texas, Huntsville, Ala., and Wallops Island, Va.
National Archives & Records Service, Washington, D. C.
National Park Service, New York, N. Y. and Washington, D. C.
Naval Air Rework Facility, Jacksonville Naval Ordnance Station, Indian Head, Md.
Naval Ship Research & Development Center, Washington, D. C.
U. S. Dept. of the State, Los Angeles, New York and San Francisco
Picatinny Arsenal, Dover, N. J.
Tennessee Valley Authority, Knoxville, Tenn.
Army Missile Command, Huntsville, Ala.
Coast Guard, Alexandria, Va., and Washington, D. C.
Naval Air Station, Jacksonville Naval Training Devices Center, Orlando Office of Education, Washington, D. C.

GRADES

The University of South Florida maintains a five-letter grading system. While pluses and minuses may be used for computation of grades or other purposes, no pluses or minuses will be recorded on students' permanent records. The five letters are:

A—Superior performance
B—Excellent performance
C—Average performance
D—Below average performance, but passing
F—Failure

In addition, the following grades are given as explained below:

R—Course repeated to remove "X" — "R" counts as failure
S—Satisfactory
U—Unsatisfactory
W—Administrative withdrawal from course without penalty
X—Incomplete
Y—Automatic failure

In CBS 401 and EDC 499, "S" and "U" grades are used to indicate the student's final grade in the course. These grades do not affect the student's Grade Point Ratio since no grade points are assigned to either an "S" or "U" grade. However, the student will receive quarter hours credit for the course toward his degree if an "S" grade is attained.

For illustration, if a student has received a grade of "S" in one three-hour course and has attempted and passed 180 quarter hours of work, his cumulative Grade Point Ratio will be based upon the 177 hours of work for which he received grade points.
If a student received a grade of "U" in the same illustration, his cumulative Grade Point Ratio would still be based upon the grade points for 177 hours of work, his attempted hours would be still 180 hours, but the passing hours would, however, be only 177 hours.

X—An "X" grade may be used for any authorized failure to meet the requirements of a course. An "X" grade resulting from any cause other than a 100 or 200 level Basic Studies machine-scored final must be removed within three weeks of the next quarter the student is enrolled. Permission to remove an "X" resulting from a Basic Studies machine-scored final must be secured from the Dean of Basic Studies within the first three weeks of the next enrollment, provided the course is offered, and the exam completed at the end of the quarter for which permission is granted. Until removed, the "X" is computed in the grade point ratio as "F."

Y—A "Y" grade is only used in the College of Basic Studies and is a failing grade. It may be given by the instructor when he believes that regardless of the grade a student earns on a final examination, he should fail the course. It may also be given on a College of Basic Studies final examination. In either case, a "Y" grade insures this failure. It is viewed as final and is recorded as "F."

W—A "W" grade indicates administrative withdrawal without penalty from the course.

The University has a system of grade points used in computing grade point ratios. (A = 4 grade points, B = 3, C = 2, D = 1, F = 0.) Grade point ratios are computed by multiplying the number of credits assigned to each course by the point value of the grade given. The total of the credit points for all courses taken divided by the total number of quarter hours attempted equals the grade point ratio. For example, a student attempting five three-credit courses who earned two A's, two B's, and one F, would have a grade point ratio of 2.800.

If a student repeats a course for any reason, his grade point ratio will include each grade received. For example, if a three-hour course is repeated, it is computed as six quarter hours attempted.

If the grade in the course being repeated is an "X," the "X" is changed to an "R" (Repeat) and is computed as an "F."

ACADEMIC SERVICES

Computer Research Center

The University maintains centralized highspeed electronic computer facilities for use in teaching, research, and administration. This Center has a Systems Planning Department which assists University Administrative Offices, a Faculty Consulting Department responsible for facilitating the use of computers in relation to classroom teaching and research conducted by faculty and students, and an education unit which sponsors non-credit seminars in computer languages such as FORTRAN and COBOL, as well as other subjects relative to the use of computers. Finally, a central corps of programmers service the University computer needs as expressed through the systems and consulting departments.
At present, the University computer facilities include an IBM 1410 and auxiliary equipment. This equipment as well as the staff of the Computer Research Center are housed in the new Science Building. In 1969, electronic computer facilities on the campus will be expanded considerably with the introduction of an on-line, time-sharing computer system. Input-output stations as well as relevant auxiliary equipment are anticipated to be ultimately located in major University buildings in order to facilitate the use of the centralized computers.

Educational Resources

The Division of Educational Resources offers the following services.

Audio-Visual Services. Audio-Visual Services make a variety of equipment and instructional materials available for the classroom, University events, and other functions. Such equipment includes public address systems, tape recorders, and projectors of all kinds.

Production Center. Both graphic and photography services for use in the classroom as well as the overall University program are produced here.

Broadcasting Services. Radio and television are a part of the Broadcasting Services. Radio WUSF is an FM radio station operating on 89.7 mc. WUSF-TV, Channel 16, UHF, is an educational television station serving the University and the communities of the seven surrounding counties. Closed-circuit television is also provided to most classrooms. These facilities are used as a laboratory for students enrolled in the broadcasting curriculum.

Instructional Materials Center. The center maintains a library of instructional materials including a curriculum laboratory, films, filmstrips, tapes, records, maps, and slides. These materials are available to the faculty and staff for academic purposes. Certain records, filmstrips, and other materials are loaned to faculty, staff, and students for independent study and recreational purposes.

Film Library. A complete film service is available. Films not a part of the University Film Library will be requested from other sources through this service.
Learning Laboratory. A telephone dial access audio-visual laboratory is available for instructional purposes. This laboratory allows telephone access to over 180 different audio sources. Up to 12 video sources are available, but restricted to viewing within the laboratory itself.

The Library

It is important that a library should take into account not only the books on its shelves but also the people it serves. This point of view is central in the philosophy of the University of South Florida Library. A library is good, not because of the volumes it has, but because it is used by people who derive personal benefit from its use and who produce something as a result of its use that will be of benefit to our society.

The Library staff wants students to regard books as a way of life and use the Library regularly. One of the reasons for providing a library collection is to encourage students to buy, read and discuss books and feel benefit when deprived of books. The University expects students to become thoroughly familiar with the University Library book collection, to master the techniques of using it, and—before graduation—to achieve a familiarity with books which will carry over into later life.

The University Library has approximately 225,000 volumes and seating for 800 readers.

The Reserve reading room, Special Collections, and recreational reading books are on the first floor. Special Collections include the Florida collection, rare books, University archives, and the Florida Historical Society Library.

The Reference collection and current periodicals are on the second floor. The Reference staff assists students in the use of Library materials and of the card catalog which is in the Reference department.

In addition to more than 3,000 periodicals, the Library subscribes to newspapers from Florida, major cities in the United States, and many foreign countries.

The circulating book collection is on the third floor and bound periodicals and U. S. government documents are on the fourth floor. The Library is a de-
pository for U. S. government publications. All books, with the exception of reserve materials and Special Collections, are in open stacks. All students have the opportunity to become familiar with the Library holdings by browsing in the stacks.

**Sponsored Research**

Research is an important aspect of the education program at the University of South Florida. Faculty members are encouraged to pursue research activities, and many students participate in research and training projects supported by funds given to the University by public and private granting agencies. Research is integrated with the instructional program in a very real sense.

The Office of Sponsored Research is the central coordinating unit for research and other sponsored educational activities on the campus. It provides information about granting agencies and serves as a consultation center for faculty who desire help in processing research proposals.

Although the Office of Sponsored Research operates primarily for the benefit of the faculty, students who have an appropriate interest in research are welcome to visit the office.

**Center for Research and Development**

In the Spring of 1966, The University of South Florida Center for Research and Development was established to house multi-disciplinary sponsored projects such as the Aging, Marine Science, Exceptional Children and Adults, and Speech Pathology and Audiology.

The USF Center is structured within the Vice President of Academic Affairs Office and is directed by an Assistant Dean of Academic Affairs. Faculty research positions are used to supply continuity for research and demonstration projects and to initiate new programs of benefit to the University and the State of Florida.

**FEES**

The following fee schedule applies to all University of South Florida students with the exception of those in the Bachelor of Independent Studies, Adult Degree Program. For information on the Adult Degree Program fees, see Academic Programs. All fees are subject to change by action of the State Legislature, without prior notice. The University will make every effort to advertise any such changes if they occur.
A. Initial Application Fee (each application-not refundable) .... $10.00

B. The following fees must be paid in full at the time of registration:

<table>
<thead>
<tr>
<th>Registration Fee</th>
<th>Tuition*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Registration Fee and Tuition: Undergraduate or Graduate students registering for less than seven quarter hours (credit or non-credit) per quarter hour</td>
<td>$10.00</td>
</tr>
<tr>
<td>Students registering for seven or more quarter hours (credit or non-credit)</td>
<td>125.00</td>
</tr>
<tr>
<td>2. Registration fee and tuition for off-campus students. Undergraduate or graduate students per quarter hour</td>
<td>12.00</td>
</tr>
<tr>
<td>3. Applied Music Fees</td>
<td>25.00</td>
</tr>
<tr>
<td>4. Late Registration Fee</td>
<td>25.00</td>
</tr>
<tr>
<td>5. Audit Fees (same rate as if registered for credit)</td>
<td></td>
</tr>
<tr>
<td>6. Cooperative Education Program (for training quarter)</td>
<td>40.00</td>
</tr>
<tr>
<td>7. Student Deposit (for full-time students)</td>
<td>15.00</td>
</tr>
<tr>
<td>8. Breakage Fee (Fees may be paid after registration for courses requiring breakage fee)</td>
<td></td>
</tr>
<tr>
<td>9. Course Drop and Add Fee (Per Transaction)</td>
<td>10.00</td>
</tr>
</tbody>
</table>

C. Room and board to be paid in accordance with information in the Housing and Food Service Contract.

<table>
<thead>
<tr>
<th>Room and Board</th>
<th>Per Quarter†</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Room and Board (students living on campus)</td>
<td></td>
</tr>
<tr>
<td>Plan A—21 meals per week</td>
<td>$298.62</td>
</tr>
<tr>
<td>Plan B—15 meals per week</td>
<td>275.96</td>
</tr>
<tr>
<td>2. Food Service Plan (students living off-campus)</td>
<td></td>
</tr>
<tr>
<td>Plan A—21 meals per week</td>
<td>158.62</td>
</tr>
<tr>
<td>Plan B—15 meals per week</td>
<td>135.96</td>
</tr>
<tr>
<td>Commuter’s Food Plan (five meals per week)</td>
<td>45.00</td>
</tr>
</tbody>
</table>

* Tuition is paid by non-Florida residents in addition to the registration fee. Florida residents pay only the registration fee.

** Items 2 through 7 applicable to both Florida residents and non-Florida residents.

† State Sales and Use Tax included.
FLORIDA RESIDENCY

A Florida resident, for purposes of admission, expenses and other University classification needs, is one whose parent or guardian (or the applicant if over 21) is a citizen of the United States, or a resident alien, and has resided permanently in the state of Florida for at least 12 months immediately preceding registration at the University. No applicant can claim Florida residence only by virtue of the fact that he or she has attended any school, college, or university in the state for the 12-month period immediately preceding registration. The owning of property in Florida while being physically located in another state does not qualify a person to claim Florida residence.

REFUND OF FEES

Students who find it necessary to withdraw from the University may be permitted to have a refund of fees upon presentation to the University Business Office of an authorization issued by the Registrar's Office. These refunds will be made under the following conditions.

1. No part of the student activity fee will be refunded if the student fails to surrender his original (current quarter) "Certificate of Fee Payment" card;
2. Deductions from authorized refunds will be made for unpaid accounts due the University;
3. No fees will be refunded after the third regular class day in any quarter except in the following cases:
   a. A student involuntarily called back to duty with the armed forces will be entitled to a refund in the amount of the registration fee less $30.00 for a full-time student and $3.00 per hour for a part-time student.
   b. The death of a student or an incapacitating illness of such duration and severity as to preclude successful completion of the academic program for the term for which enrolled would also permit a refund in the amount of the registration fee less $30.00 for a full-time student and $3.00 per hour for a part-time student.
   c. Cancellations would be considered a separate category where the student is considered not to be registered because of the University's actions, usually resulting from some pre-existing University regulations.
4. Refunds for a full quarter for undergraduates and graduates:
   a. A full refund will be made if withdrawal is effected before the first day on which classes begin for the quarter.
   b. A full refund less a $30.00 charge will be made for a full-time student making a complete withdrawal from the University on or before the third regular class day in any quarter.
   c. A full refund less a $30.00 charge and the proper charges per hour for each hour continued by students changing from full-time to part-time on or before the third regular class day in any quarter.
   d. Part-time students will receive a full refund less a charge of $3.00 for each hour dropped on or before the third regular class day in any quarter.
5. A full refund of music fees and out-of-state fees will be made if withdrawal is effected on or before the third regular class day in any quarter.
STUDENT DEPOSIT FEES AND CHECK CASHING SERVICE

At the student's first registration every full-time student is required to pay a refundable deposit of $15.00 to cover cost of replacement due to any loss or breakage of University equipment, fines and other charges. The student will be required to maintain his deposit at a minimum of $5.00 and will not be billed during the enrollment period except when the deposit falls below this amount. If the deposit falls below the minimum before the end of attendance at the University, the student will be notified by the University Cashier to bring his deposit up to $15.00. Failure to comply will deny the student the privilege to re-register.

If the student changes from full- to part-time, or withdraws from the University, he may apply to the Cashier's Office for a refund of the deposit. All deposits will be refunded by check within 30 days after application has been made. If the student has registered on a full-time basis, the deposit will be extended for that period.

The University will accept personal checks for accounts due the University. Each student is urged to make his own financial arrangements through his choice of commercial banks. The University Cashier and the Bookstore will cash personal checks not exceeding $50.00. A nominal service charge will be made for checks returned for insufficient funds or other reasons.
STUDENT WELFARE

The University of South Florida is dedicated to the intellectual, social, and moral development of students in order to provide responsible leaders who can work effectively in a democratic society. The university has a concern for the total life of the student as well as for his classroom performance. Diversity of opinion, criticism, and dissent are essential in discharging these responsibilities, and this has been set forth and safeguarded in the Board of Regents' Operating Manual.

As a condition for admission to one of the State Universities of Florida, students agree to abide by the policies of the Board of Regents and by the rules and regulations of the institution. The University has the right and responsibility to determine who shall be admitted to the institution; the conduct or behavior acceptable to the institution; and under what conditions one may continue as a student. Administrative due process and the right of review in all disciplinary hearings are provided by the University.

Academic freedom and free inquiry in the State Universities can be preserved only if protected from outside manipulation and subversion. The universities must be protected from those persons who would disregard normal channels by which grievances may be aired and who would create disturbances on campuses in such a way as to impede or interfere with the educational or orderly operation of the university.

University officials and particularly the Dean of Students and his staff are charged with the responsibility of interpreting the policies of the Board of Regents to students and others in the university communities, and with developing positive student personnel programs which further the intellectual, social, and moral development of students.

**Student Affairs**

Implementation of the personnel service program for students is the concern of the Office of the Dean of Student Affairs. Orientation of new students, residence hall programs, University Center programs, scholarships, financial aid, student health, student activities, student organizations, class attendance, disciplinary action, personal counseling, physical education, recreation, intercollegiate athletics, and student publications are programs of Student Affairs. The University provides the leadership and professional services for maintaining the educational philosophy of this program.

The Office of Dean of Women is available to help women students. Personal counsel and advice about student women's organizations are provided
by this office. Attendance in classes, academic difficulties, social standards, and advisement to the Council on Religious Activities are also concerns of the Dean of Women. The Office of Dean of Men is available to help men students. Personal counsel, advice about organizations, social standards, and orientation of new students are concerns of the Dean of Men. This office also serves in an advisory capacity for foreign students and fraternities.

Experiences which develop in students a firm and enlightened belief in democracy, an understanding of its methods, and a sense of personal responsibility are essential for a free society. The social experiences of working in extra-curricular activities provide valuable personal understanding, emotional maturity, recreation, and social skills. Out-of-class activities of the University are related to these ends. Student activities, clubs and organizations are incorporated in the University's total educational program through the staff of Student Affairs and faculty advisers. The Director of Student Organizations, Dean of Women, Dean of Men, and the University Center and residence halls are particularly concerned with this co-curricular area of student life.

Information and advice about student organizations are provided by the Office of Director of Student Organizations. The office assists in the organization of new groups and serves as an advisory center for programs of activities, membership requirements, names of student leaders, financial advice, and assistance for advisers. Active participation in student organizations is a valuable part of a student's total education, and develops desirable qualities and traits of leadership, personality, and character.

**Student Conduct, Dress, and Discipline**

Social standards governing activities of student groups have been developed jointly by students, faculty, and the Student Affairs staff. Social standards boards review violations of these codes. Self-discipline and awareness of social obligations are the objectives of the program.

Students attending the University of South Florida are considered to be responsible young adults studying with their faculty colleagues in search of knowledge. Rigid regulation of personal conduct should not be necessary.

Freedom must be balanced by individual responsibility and respect for the rights and freedom of others. Students will, therefore, be considered responsible for their own decisions and actions both on or off campus. Failure to assume this responsibility or actions which jeopardize the rights, freedoms and safety of others and the integrity of the University will result in disciplinary review.

Just as the University expects high standards of academic performance, so does it expect high standards of individual conduct. Similarly, it expects dress to be appropriate to the activities in which the individuals are engaged.

Noticeable or gross departures from expected standards of conduct or dress on the part of students will first be considered errors in judgment. Advisers or other officers of the institution will discuss such lapses with the student concerned. Persistent violations of expected standards or established regulations will involve appropriate disciplinary action. The University may deny admission or continued attendance to those whose decisions and actions are contrary to the purposes and procedures of the University.
Students participating in the University’s Cooperative Education Program will be expected to dress appropriately in accordance with the Cooperative Education Policy pertaining to dress and personal appearance.

**Automobiles**

Students may use automobiles on campus. Parking facilities are provided for resident and commuter students. All automobiles used on campus must be registered with the Security Department and the Traffic Regulations adhered to. There is a nominal charge for vehicle registrations.

**Student Government**

The Student Government includes all regularly enrolled students of the University. Each student carrying seven or more credit hours per quarter is a voting member of the University of South Florida Student Government. Through its councils and elected officers, the government directs many student activities. Elections for membership on college councils and for Student Government offices are held annually.

Representation in the Student Government Legislature is based on proportional representation from the colleges, residence areas and commuters.

The Student Government is the medium through which students participate in the program of University life. In addition, the Student Government elects student representatives to the University Senate.

**Insurance**

**TRAVEL INSURANCE**

Students may obtain accident insurance for a nominal charge at the U.S.F. Bookstore in the University Center for field trips and personal travel.

**PERSONAL PROPERTY INSURANCE**

Students living in the residence halls may obtain insurance on personal property at the rate of $5 for personal property valued up to $500. Applications are available in the Housing Office and payment is made to the Cashier in the Finance and Accounting Office.

**Housing**

The housing program of the University is part of the total educational plan. Functional, pleasant living conditions contribute to a student’s scholarship, habits, and attitudes. Provision of adequate living conditions is a responsibility shared by students, parents, and the University.

Students apply for housing when applying for admission to the University. Contracts for housing assignment will be sent after admission has been approved.

Those students who reside within a 20-mile radius of the University are generally expected to commute. All Tampa students are considered to be within the 20-mile radius.
Other regularly enrolled students paying the registration fee for full time attendance are expected to live in University residence halls or in approved off-campus residence halls which meet University regulations pertaining to operation and staffing.

Students will be permitted to live in University-approved off-campus accommodations if they are at least 21 years of age by September 1 of the first quarter, January 1 of the second quarter, March 1 of the third quarter, and June 1 of the fourth quarter. Those students who become 21 years of age while in residence must complete their current housing contract.

Students will be permitted to live in other than University-approved accommodations if they meet one of the following qualifications: (a) married student living with spouse; (b) living with parents, legal guardians, or (with the approval of parent or guardian) other adult relatives; (c) paying part-time fees.

Applications for exceptions are to be directed to the Dean of Men or the Dean of Women.

RESIDENCE HALLS

Accommodations for students are available in the University’s modern residence halls. Residences are completely air conditioned and provide for the living, educational, social, and personal needs of students.

In general, rooms are furnished with beds, dressers, mirrors, desks, lamps, drapes, and chairs. Linen service is provided. In each living unit, composed of between 40 and 50 students, a Resident Assistant is available to assist students. A Resident Instructor for each hall is available for personal and academic counseling.

The University’s residence halls are grouped in units called complexes. The first completed complex—Argos—includes three residence halls grouped around Argos Center, which serves as the living and dining rooms of these halls. In addition to the lounges and cafeteria, Argos Center has a snack bar.
TV room, conference rooms, barber shop, beauty shop, and Argos Shop (an annex of the University Campus Shop and Bookstore). The students residing in these halls live in study-sleeping rooms. An outdoor swimming pool in this complex is also available for student use.

Andros Complex—consisting of nine residence halls—provides a different type of living arrangement for students. Suites are designed to accommodate eight students—two students sharing a bedroom, four students sharing a study room and eight students sharing a bath. In addition, each living unit has its own lounge. Andros Center is also considered the living and dining room of the students residing in this complex and has most of the same facilities as in Argos Center.

The residence hall program emphasizes gracious living, attractive surroundings, opportunity for group activity, self-government, and counseling services of professional people.

**OFF-CAMPUS HOUSING**

The University has approved certain off-campus residence halls which have met University regulations pertaining to operation and staffing. Information regarding these facilities is available through the Housing Office.

Students who meet the University requirements for off-campus living must live in housing acceptable to their parents and the University.

The Housing Office maintains a list of approved off-campus housing. Rental arrangements may best be made after personal inspection of facilities and conference with the householder before the University opens. Fall quarter arrangements may be made during the summer.

**Food Service**

All students in residence halls on the campus receive three meals a day in the cafeterias. The cost is included in the total charge for room and board. A food service boarding plan is available to those living off campus. Snack bars, open during the day and evening, provide sandwiches and fountain service. Several small dining rooms may be reserved by committees or special groups wishing to take their trays to a private place for luncheon or dinner meetings.

**Student Health Service**

Comprehensive health care is provided for full-time students through the University Student Health Service.

A medical examination must be filed by each full-time student prior to registration, including certification of recent immunizations against smallpox, tetanus, and polio. The required form for the examination is provided by the Registrar's Office.

An outpatient clinic, with laboratory and physiotherapy facilities, is maintained. Infirmary care is available for students with illnesses precluding attendance at classes. University physicians have daily office hours, except weekends; and emergency care in the Health Center is available continuously, including nights and weekends.

Consultation with medical specialists and hospital emergency room care
may be provided by the Student Health Service, as well as payment of the first $100 of hospitalization expenses, when approved by the Director of the Health Service. Other types of off-campus medical care remain the responsibility of the individual student.

A voluntary health insurance program is available through the University. A medical history and record of physical examination and inoculations must be filed in the Student Health Service as a requirement of admission.

Developmental Center

The Developmental Center provides services for students desiring professional assistance in the areas of reading, vocational guidance, personal counseling, tutoring, speech and hearing. These services are available to assist students in evaluating and remedying problems which interfere with efficient learning and satisfying participation in campus life.

The Reading Service provides diagnosis and evaluation of reading skills and habits. Visual screening is also available. Two approaches are offered to meet the needs of students referred for help in reading. Non-credit courses in developmental reading are offered which include extensive instruction and practice in word attack, comprehension and in different ways and purposes of reading. An independent study non-credit course is available for students who prefer to assume responsibility for their own improvement with the emphasis on the individual need. Reading laboratory service is available for all reading students enrolled in either the classes or independent study sections. Regular registration procedures will be followed for specific courses such as Developmental Reading. Staff and facility limitations will restrict servicing of new applications to emergencies during peak periods.

The Speech and Hearing Service offers diagnostic and therapeutic sessions for students whose speech or hearing interferes with effective communication. Speech and hearing screening is required for all new entering students. Therapy is available for students who are referred or feel a need for speech improvement.

Counseling Services are available for students requesting help in career planning and in dealing with personal problems. Through testing and interview the counselors assist any student to evaluate his personal aptitudes for his educational and career goals. Any student may ask for help in the Center when he feels that increased understanding of himself and of his relations with others would lead to more confident and satisfactory living and learning.

Students desiring special assistance in their courses may apply to the Developmental Center for tutoring provided by other students in various subjects and courses. Fees are charged by the tutors according to standard rates established by the Developmental Center staff.

Application for any of these services of the Developmental Center may be made by any student at any time and as often as desired.

Psychiatric Services aid the student when medication, hospitalization or psychiatric evaluation is needed.

Vocational Rehabilitation is a State of Florida service located in the Developmental Center to facilitate the University students' utilization of aid available.
Financial Aids

The student financial aids program at the University of South Florida is intended to assist qualified students to obtain a university education when they might otherwise lack financial resources. Financial assistance, with the exception of Service Awards is granted on the basis of financial need, academic promise or attainment, and character.

Scholarships are available, suited to student financial need and academic promise. Registration-Fee Work-Scholarships are awarded which require about four hours of work on campus per week. University of South Florida Foundation Grant-in-Aid Scholarships and Service Awards are available if the student makes timely application and is qualified for the award.

Scholarship applications are accepted only once each year and must be filed no later than February 1 for scholarships which will begin with the fall quarter. National Defense Student Loan applications for the entire academic year and/or first quarter must be filed not later than March 1. Applications for other quarters may be filed at any time; however, availability of funds will be the controlling factor in granting loans after the original deadline date.

National Defense Education Act Student Loans permit entering freshmen, transfer students, and continuing students to borrow up to $5,000, with a maximum of $22 per quarter hour carried each quarter. Repayments begin nine months after the borrower ceases to be a full-time student, at which time the loan draws interest of three per cent. Payment must be made within ten years. Part of the loan may be canceled if the student teaches in an elementary or secondary school, college or university. Payment is deferred if the student enters the armed service or Peace Corps.

Florida State Education Loans permit any student who has been a resident of Florida for a maximum of three years to borrow an amount predicated on financial need, but usually limited to the registration fee. Repayments begin approximately one year after the borrower ceases to be a full-time student, at which time the loan begins drawing four per cent interest. Repayment of the loan must be completed within five years.

Additional long-term loans may be granted, subject to the availability of funds, from the following programs: Sertoma Memorial Loan Fund for residents of Hillsborough County (number and amount of loans vary); the James J. Love Memorial Scholarship Loan Fund, preference to Gadsden County residents (number and amount of loans vary); Pan-American University Women’s Club of Tampa Scholarship Loan Fund for a Tampa high school graduate of Latin descent; Credit Women of Tampa Scholarship Loan Fund; Vallie H. Perry Chapter of United Daughters of the Confederacy Scholarship Loan Fund for a student whose ancestor served in the Confederate Army or Navy; Henry & J. Edward Rosenzvaig Memorial Fund with preference given to Hillsborough County students majoring in science or engineering; Memorial Junior High School Loan Fund for students who have attended Tampa Memorial Junior High School; Ruby S. Friedberg Student Loan Fund of the B’nai B’rith Women of Tampa; Selby Foundation for brilliant and deserving science students, preferably Sarasota County or West Coast area; Tampa Jr. Chamber of Commerce Student Scholarship Loan Fund for residents of Hillsborough County; Florida Philatelic Society Student Scholarship Loan Fund; Gloria Davis Haston Memorial Loan Fund for graduates of Hills-
borough High School; Mrs. Nylah Bell Memorial Loan Fund for graduates of Hillsborough High School; Richard Martin ("Marty") Starns, III, Memorial Engineering Student Loan Fund for students pursuing an engineering education; and the United Daughters of the Confederacy Scholarship Loan Fund for descendants of those who served in the Confederate Army or Navy.

Long term loans may be available from home town participating banks through the Federally Insured Student Loan Program. Loans are not payable until the student graduates, or leaves the University. More information on this program is available in the Office of Financial Aids.

Short term loans are available from the Louise Ramey Fund and the American Institute of Mining, Metallurgical and Petroleum Engineers, Inc. Junior-Senior short-term loan fund. Short-term loans are made available to foreign students through the Ann and Henry Jander Memorial Loan Fund.

Applications for scholarships and/or student loans should be made to the Director of Financial Aids.

The following scholarships, with their minimum value given in parentheses, are currently available to qualified students: American Business Women's Assn. Scholarship (Suncoast Chapter) (one, amount varies); American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc. (Florida West Coast Chapter) (one, $250); John Stewart Bryan Memorial Award (one, amount varies): Pauline Bush Scholarship (one, amount varies); Elizabeth Cone Book Scholarship (one, $50); East Hillsboro Opti-Mrs. Club Scholarship (one, amount varies); Florida Accountants Assn. Scholarship (Gulf Coast Chapter) (one, $250); Florida State Regents Scholarship (number and amount varies; application should be made to the student's school principal or guidance counselor); Fontana Hall Scholarship (one, $1,000); Food Fair Stores Scholarship (two, $200 each); General Telephone Scholarship (two, $375 each); Patrick Gordon Estate Scholarship (two, amount varies): Gulf Life Insurance Company Scholarship (one, $1,000); Knight and Wall Scholarship (one, $451.50); Maas Brothers Scholarship (one, $525); North Tampa Business and Professional Women's Club (one, $150); Personnel Administration Association of Central Florida Scholarship (one, $300); Pi Kappa Alpha Fraternity Scholarship (one, amount varies); Reader's Digest Foundation Scholarship (number and amount varies); T. R. Robinson PTA Scholarship (one, $500); State Teachers Scholarship (number varies, $600 each—application should be made to the student's County Superintendent of Public Schools prior to October); Tampa Lakes Women's Club Scholarship (one, $50); Teachers of the Mentally Retarded Scholarship (number and amount vary); USF Work Scholarship (approximately 125, $375 each); Winn-Dixie Stores Foundation Junior-Senior Scholarship (one to three, $200 to $600); Winn-Dixie Stores Foundation Scholarship (number varies, $375 each; recipient chose by Winn-Dixie Stores Foundation, Jacksonville, Florida).

For the National Scholarship Service and Fund for Negro Students, applications should be made directly to this Fund: Address — 6 East 82nd Street, New York, New York 10028.

The Vocational Rehabilitation Division, State Department of Education, Tallahassee, Florida, provides limited assistance to students who are handicapped.
The Florida Council for the Blind, P. O. Box 1229, Tampa, Florida 33601, provides financial help for blind students.

Students with a minimum of 24 hours of academic credit and a grade point average of 2.0 or better may apply for a Cooperative Education team. Further information on the Cooperative Education Program is given on page 33.

Student employment under the College-Work-Study Program, administered by the Office of Education, Department of Health, Education and Welfare, is available for students from families meeting the income requirement for eligibility. Certification for eligibility must be received from the Office of Financial Aids.

Additional information on scholarships is available in the Office of Financial Aids.

**Placement Services**

The purpose of the Placement Services Division of Administrative Services is to assist students and alumni in realizing their career objectives. This office, together with the Cooperative Education Program and the Financial Aids Office, attempts to insure that economic considerations will not impede the progress of any student who is seriously in pursuit of a college education.

Every effort is made to insure part-time placement for undergraduate and graduate students who express a need for employment. Students may register for part-time placement both on and off campus, as well as for seasonal employment throughout the world. Up-to-date job listings are maintained during the year to assist the student seeking part-time employment.

One of the recognized goals of a college education is to maximize career satisfaction, and Placement Services exists to facilitate the achievement of this end. The Career Planning Center provides the student with materials on vocational guidance, career opportunities, and employers. It is maintained in Placement Services as an adjunct to the Graduate Placement Service, the Cooperative Education Program and the Developmental Center, for the benefit of all students.

Placement Services also serves as a central source of information on graduate schools and programs and maintains a variety of material on financial assistance available to graduate students. In addition to graduate school catalogs and information on individual college and university stipends, material and applications are maintained on such national and international awards as Fulbright and Rhodes Scholarships, National Science Foundation Fellowships, and many others. All students with an interest in attending graduate school are encouraged to begin their investigation of opportunities in this office.

Students register with Placement Services early in their graduating year. This enables them to interview on campus with recruiters from educational systems, businesses, industries, and governmental agencies throughout the country. Every registrant receives 25 free copies of his personal resume. In addition, these credentials may be used when applying to graduate school. The above services are also available to alumni desiring career relocations.
University Center

The University Center serves as the hub of campus life outside of the classroom. It provides facilities, services, and programs to enhance the social, cultural, and recreational life of the University. The information service desk serves as the coordinating center for the numerous and varied services and activities of the University Center and out-of-class student life. It is here that student organizations schedule facilities and request services for their various activities. The master schedule of all student activities is maintained at this location.

Many of the University Center’s facilities and services provide for personal and social needs. It has conference and activity areas, lounges, a cafeteria, dining rooms, a snack bar, student organization offices, craft and photography areas, a ballroom, book lockers, lounges and television listening, billiards, table tennis, table games, the University Campus Shop and Bookstore, Student Health Services, a magazine browsing library, campus lost and found, and various other services. Food Service, Bookstore and Health Service operations are coordinated through their respective University administrative areas, while the other facilities and services are coordinated by the University Center Director’s office.

In addition to providing services and facilities, the University Center also functions as a program. The University Center Program Council is comprised of the chairmen of 10 student committees and three elected officers. The Program Council provides a social, cultural and recreational program under the guidance of professional staff advisers to make leisure time activities more meaningful. The overall program is designed to supply additional experience by providing opportunities for self-directed activities and the attainment of social skills and knowledge.

The Center’s program contributes to achievement of the educational goals of the University by providing a laboratory for experience in citizenship—a community center where all may have a part in the direction of community enterprises. Academic and non-academic interests are related so that students’ development may be well-rounded and complete. Enhancement of social skills and emotional development of the individual are also goals of the program.

The University Center Program Council has as its objective to provide a balanced program of activities reflecting the special social and recreational needs of all students’ out-of-class interests. All activities are planned, arranged, and directed by student committees. A student may volunteer to serve on such committees as dance, hospitality, fashion, music, special events, arts and exhibits, movies, recreation, personnel, public relations and publicity committees.

USF Bookstore and Campus Shops

The USF Bookstore is located in the University Center Building. The Book Department, on the ground floor, carries all required textbooks, a large selection of trade books and over 8,000 paperback titles. Special orders are taken for any book which is in print. The Merchandise Department, on the
first floor, carries required course supplies, general supplies and items such as art prints, USF monogrammed clothing and jewelry, sundries, records and greeting cards. Special orders are taken for many other items. There are copying, film development, personalized stationery, class rings and cap and gown ordering services. Student's personal checks up to $50.00 are cashed, providing cash is available.

Argos Shop, located in the Argos Complex, and Andros Shop, in the Andros Complex, are branch stores carrying a large selection of non-required reading material plus a full line of personal toiletries. Andros Shop also specializes in monogrammed sorority and fraternity items.

The Bookstore for the St. Petersburg Campus is located in that campus' Administration Building and carries required textbooks and supplies only.

The shop at the USF Golf Course carries a wide selection of golf clubs, bags, supplies and accessories for students, faculty, staff, and members of the USF Foundation.

**Clubs and Other Organizations**

Students have formed clubs, organizations, and councils in almost every field of interest. New groups are being formed and will continue to develop. Groups presently organized cover the most frequently desired kinds of activities.

**DANCE, MUSIC AND DRAMA CLUBS**

The excellent program in the Fine Arts and the facilities of the Fine Arts-Humanities Building and the Theatre and the Theatre Center have attracted students to various student interest groups. These student organizations—USF Dance Theatre for those interested in dance, Bay Players for those interested in theatre, and Phi Mu Alpha Sinfonia, Sigma Alpha Iota and Ripieno Club for those interested in music—welcome all students to participate. Students are also welcome to join such academic units as the University-Community Orchestra, the University Concert Band, and the Fine Arts Chorale. (See Music course descriptions)

**CULTURAL EVENTS**

Many of today’s outstanding visual and performing artists are brought to the University of South Florida campus each year. The Artist Series provides unusual opportunities for hearing the best music performed. The Exhibition Series provides unusual opportunities to view over thirty exhibitions annually in the University’s three galleries. These and other programs conducted by the Florida Center for the Arts significantly contribute to the education of students and the general vitality of the campus.

In addition, the Division of Fine Arts arranges a full schedule of concerts, plays, lectures, films and workshops which feature students, faculty and visiting artists. The events are presented both during the day and in the evening. Many are free of charge.

Most events are open to the general public. The University publishes a Calendar of Events which is available upon request to the Coordinator of Events, U.S.F. Theatre.
PUBLICATIONS

The University has encouraged and is developing a growing program of campus communication through various publications. These publications are all-University in approach and coverage. They are staffed by students under the general supervision of the Office of Campus Publications.

An 8-column campus newspaper, The Oracle, is published each Wednesday of the school year. Containing 10 to 14 pages in each issue, it provides professional experience for those students interested in journalism. Laboratory sessions of journalism classes in newswriting, news editing, makeup and advertising are used to produce major sections of the newspaper. Any student interested in working on the newspaper in any capacity is not only encouraged but urged to participate. About one-third of the staff each quarter is not enrolled in journalism classes.

A University yearbook, The Aegean, is produced once a year. All students are eligible to work on this publication and much valuable experience in photography, layout, editing, and business techniques is received by these students.

A campus literary magazine, South Florida Review, is produced periodically. While the magazine is sponsored by the Office of Campus Publications, anyone at the University may submit manuscripts for consideration. This publication is devoted primarily to essays, poetry, and literary criticism.

Interested students are invited to join the staff of any campus publication.

FRATERNITIES AND SORORITIES

There are currently thirteen national fraternities and one local and seven national sororities functioning on campus. They carry out a program of social, educational, service, and recreational activities for their members. Membership in these organizations is open to student, by invitation only, once the student has completed 12 credit hours with a 2.0 ("C") average or better. Their programs are coordinated through the Interfraternity Council and the Panhellenic Council—with the advice of faculty and staff members.

RELIGIOUS ORGANIZATIONS

The University has encouraged student religious organizations to develop associations and centers. Denominations have built centers in a reserved area on campus. The Episcopal Center was dedicated in the fall of 1962 and the Baptist Center in the spring of 1964. The University Chapel Fellowship followed in 1966. (This center is an ecumenical campus ministry of the following denominations: Methodist, Presbyterian, and United Church of Christ). The Roman Catholic Center joined the others in the fall of 1967.

Student religious organizations active on campus include the Baha'i Club, Baptist Student Union, Campus Crusade for Christ, Catholic Student Organization, Christian Science Organization, Hillel of the University of South Florida, Lutheran Student Organization, Student Vestry of the Episcopal Church, and the University Religious Council.

SERVICE AND HONORARY

Alpha Mu Omega (men's music honorary), Alpha Phi Omega (men's national service fraternity), Circle K, Collegiate Civinettes (women's service...
organization), Athenaeum (women’s honorary), Gamma Theta Upsilon (geography honorary), Omicron Beta Kappa (men’s leadership honorary), Gold Key Honor Society, Pi Mu Epsilon (mathematics honorary), Sigma Alpha Iota (women’s music honorary), Psi Chi (psychology honorary), Sigma Pi Sigma (physics honorary), and Tau Beta Phi (engineering honorary), provide associations for leadership and University service experience.

SPECIAL AND ACADEMIC INTEREST ORGANIZATIONS

Students have organized and continue to organize clubs covering a broad range of special and academic interests. Membership is usually open to anyone having an interest in the club’s activities. Clubs active at present include the Archery Club, Basketweavers, Bay Players, Dance Club, Economics Club, Engineering Belles, English Club, Fencing Club, Florida Engineering Society, Forensics Club, Judo Club, Karate Club, Le Cercle Franais, Library Education Audio Visual Organization, Marine Biology Club, Motley Crew, One to One, Parachute Club, Politically Active Conservative Council, Political Union, Radio Club, Readers Theatre Guild, Ripieno, Russian Language and Culture Club, Senior Accounting Club, Speech Pathology Club, Sports Car Club, Student Council for Exceptional Children, Students for Responsible Government, T.C.C. (Judo), University Riding Club, USF Pre-Medical Society, Veterans Club, Water Ski Club, Windjammers, Women Here and There (WHAT), Women’s Karate Club, Young Democrats, Young Republicans, and Your Opinion Unpressed (YOU).

COUNCIL AND SPECIAL SERVICE ORGANIZATIONS

In addition to the organizations mentioned above, a number of groups provide programs, information and governmental experience for the students at the University. These include the Aegean (yearbook); College of Basic Studies College Council; Student Advisory Board, College of Business; College of Education Council; Cooperative Education Student Council; Engineering College Association; Liberal Arts Dean’s Student Advisory Board; Interfraternity Council; Inter Residence Hall Council; The Oracle (campus newspaper); Panhellenic Council; Residence Hall Centers; Senior Class; Student Government Association; University Center Program Council; University Religious Council; and the World Affairs Council.

Recreational Sports

The University of South Florida provides a variety of physical and recreational activities designed to meet the needs and interests of students. Believing that a sound and complete education includes a proper balance of work and study with physical activity, the University program includes Intramural Sports competition for men and women, Sports Clubs, and All-University event days in addition to basic instructional programs in physical education.

The activities represent a broad selection of sports ranging from those of a highly competitive nature to those of a non-competitive type and include individual, dual, team and aquatic sports. Through participation, students, faculty and staff will increase physical fitness, augment leisure time skills and develop a wholesome attitude toward physical activity.
The Intramural Sports Program emphasizes activities that are especially suited to the Florida climate. Competition is scheduled in such individual sports as swimming, tennis, track, golf, cross country, table tennis, bowling and archery, as well as the team sports of touch football, basketball, soccer, volleyball and softball. Competition is scheduled through fraternal societies, residence halls, and independent divisions. Team and individual awards are presented.

The Sports Club Program includes groups of students, faculty, and staff who have a special interest in a particular sports activity. They are organized for the purpose of increasing skills and augmenting knowledge through a continuing in-service training and competitive program. Each sports club is assisted by the coordinator of sports clubs in the selection of a faculty adviser and the initial organization of the club is governed by University regulations. Students with special sports abilities or interests are encouraged to make them known so that when sufficient need and interest warrant, new sports clubs may be formed. Present clubs include: fencing, golf, gymnastics, judo, karate, sailing, sports car, tennis, water skiing, and weight lifting.

The Special Events Program is geared to provide the University community with a variety of informal recreational activities. Some of the activities are: open tournaments, trips to special athletic events, splash parties, picnics, camping, boating, bowling, bike racing and other special project activities related to the development of campus recreation.

Intercollegiate Athletics

The University of South Florida fields teams in such intercollegiate sports as baseball, golf, soccer, swimming, tennis, track, and cross-country. It is not anticipated that such activities as football and basketball will be initiated. Schedules are arranged with quality and reasonable competition which reflect the high standards of the University. Women's athletics are encouraged and held to the same rules that apply to men's athletics.
ACADEMIC PROGRAMS

The University of South Florida programs are currently conducted through five colleges. The College of Basic Studies provides the basic general education needed by all students. The College of Business Administration offers professional courses leading to the bachelor of arts and master of business administration degrees. The College of Education offers professional courses leading to the bachelor and master of arts degrees for teachers. The College of Engineering offers programs leading to the bachelor and master of science in engineering. The College of Liberal Arts offers courses in the arts and sciences, including a variety of professional and preprofessional programs, on the baccalaureate and master's levels, and offers the Ph.D. degree in biology. Each of these colleges has its own requirements and standards. However, all share University-wide emphases and certain common requirements for graduation.

Each college has prepared its course offerings with strong undergraduate programs clearly in mind. Students are urged to make their college education a broad one, reserving intensive specialization until they are on a job or have gone on to graduate or professional school.

Each college accepts the idea that a college education begins with a broad base of general courses, proceeds to more specialized work and ends with a formal effort to bring together the many separate threads of an education into a significant pattern. Thus, all students enroll first in basic studies courses, then in courses in the college where they wish to concentrate, and finally in a senior integrating seminar. It is hoped that students will constantly attempt to synthesize their education as they move along and that they will have had considerable experience by the time they reach their senior seminar.

Summer Session

The Summer Session (4th Quarter) constitutes an integral part of the academic program of the University of South Florida. Summer courses are identical with those offered at other times during the academic year and are taught by the regular University instructional staff or by outstanding visiting teachers. In addition to these regular courses, there are various credit and non-credit workshops, institutes and conferences conducted by specialists.

While the Summer Session may serve as a continuation of study, as the fourth quarter of the academic year for regular students, attempts are made to make the schedules of these courses and programs attractive to in-service teachers and for beginning freshmen just graduated from high school.
The Evening Sessions

The Evening Sessions of the University of South Florida are designed to meet educational needs of people within commuting distance.

The admission requirements, the deadlines and other University regulations for the Evening Sessions are the same as those for other students. Evening students must complete an application for admission to the University of South Florida and present all material required and described under Admission to the University.

Degree seeking students are assigned an adviser shortly after admission to the University and continue with the assigned adviser unless the student or adviser requests a change. Advisers are assigned on the basis of the educational objective of the student. The Center for Continuing Education is open each evening classes are in session and non-degree seeking students are free to consult with that office on any problems or questions that might arise.

Students admitted to the Evening Sessions may select courses to fit their needs with the adviser’s approval and with the consent of the instructor. However, students who do waive these requirements must possess sufficient background and experience to compensate for them. The student and his adviser should determine the need for prerequisites and the level of courses in which he will enroll.

(Registration for courses in the evening is held during the same period as registration for day sessions.) The courses of the Evening Sessions contain the same material and requirements as the equivalents offered during the day. Each student will be expected to meet the same standards of performance and pass the same examinations full-time day students are required to complete. Grades and progress will be based on the same system applicable to full-time students.

Students may enroll in courses offered by any of the colleges of the University. As a general rule, part-time students attending night classes are encouraged to take no more than two courses. No evening student may enroll in more than three courses in any one quarter.

Students seeking degrees through the Evening Sessions must meet the same degree requirements as day students. These requirements are set forth under the curricula of the various colleges.
ACADEMIC PROGRAMS

Continuing Education

LOCATIONS

Programs as described below are available in many geographical areas but co-ordination of these programs is handled through the Continuing Education office located at the Tampa campus and offices of Continuing Education located at St. Petersburg and Sarasota. The Center for Continuing Education also includes the use of the residential conference center at Chinsegut Hill at Brooksville. Individuals desiring more information about these programs can contact any of these offices.

CREDIT COURSES

The University of South Florida serves the in-service and continuing educational needs of its ever-expanding professional and occupational community which encompasses 12 counties: (Charlotte, DeSoto, Hardee, Hernando, Highlands, Hillsborough, Lee, Manatee, Pasco, Pinellas, Polk, and Sarasota).

Both degree and non-degree seekers may participate in the University's Continuing Education Credit Program. A part of an individual's master's degree credit may be earned by taking off-campus credit courses. This individual, however, is encouraged to apply for graduate status at an early date so that these courses may be considered for inclusion in his planned and approved graduate program of studies. Acceptance for enrollment in a course does not itself constitute acceptance to the University.

To assure quality of instruction, the continuing education credit courses for the most part are taught by the regular faculty of the University. When this is not possible, outstanding instructional personnel are recruited from neighboring accredited institutions. In addition, the University System Extension Library makes available for each continuing education course the latest in reference and audio-visual instructional materials.

The academic calendar for courses scheduled off campus is essentially the same as for the University's on-campus credit program. Classes are generally scheduled once a week, although a few do meet twice a week.

Although some continuing education credit courses are generated by the University itself, most originate through requests which are initiated by individuals or interested groups. Requests for continuing education courses in the area of education should be submitted to the County Extension Coordinator designated by the county superintendent of schools. Requests for continuing education courses in all other areas should be transmitted by individuals, groups, companies, agencies, etc., directly to the Coordinator of Off-campus Credit Courses, Center for Continuing Education, University of South Florida.

NON-CREDIT PROGRAMS

A variety of non-credit educational programs (conferences, workshops, short courses, certificate programs, etc.) of varying lengths are scheduled throughout the year, making it possible for the University to serve greater numbers of adults with richer and more diversified programs. The programs
vary in length from one day to ten weeks, and the subject matter is concentrated as needed by the group being served.

The Center for Continuing Education develops programs for business and industry, government, professional, civic and service groups. A variety of instructional methods are used to assure maximum participation in the educational programs. Distinguished faculty members from the several colleges of the University, faculty from other institutions of higher education as well as national and international resource persons, serve as instructors and lecturers for the programs.

A staff of professional program advisers is available to provide technical assistance in program planning, budget preparation and evaluation, and to assist organizations in developing programs consistent with the needs of the group and the overall educational objectives of the University. Programs are offered in the following areas: business, education, engineering, liberal arts, public administration, health occupations, and science.

The Center also offers a number of non-credit certificate programs and courses designed to meet various educational needs of individuals. Emphasis is placed upon quality classes for progressional advancement, personal improvement and cultural enrichment.

Registration in these classes is open to all adults with a desire for knowledge and interest in the subject matter. Instructors of non-credit classes are chosen from the faculty of the University, or are outstanding local resource persons.

**Bachelor of Independent Studies Degree Program**

The Bachelor of Independent Studies Degree Program is designed especially for adults over twenty-five who are unable to dedicate a block of time as a resident to complete a regular degree program. The BIS Curriculum consists of study in four areas: The Humanities, Natural Sciences, Social Sciences and Inter-area Studies.
The BIS Adult Degree Program does not involve specific courses, credit hours or letter grades. The student's work is rated as satisfactory or unsatisfactory. The Program is administered through the USF Center for Continuing Education and is academically responsible to the College of Liberal Arts.

The BIS Degree candidate pursues each of the four areas of study through two approaches. The first phase of work for each area consists of guided independent study. The student proceeds under the guidance of a faculty adviser who furnishes directions relative to reading assignments, methods of reporting and other study projects. When the student and his adviser feel that he has attained adequate competence in the area of study, the student is invited to take an Area Comprehensive Examination.

The second and final phase of work for each area consists of an area seminar. An area seminar represents a period of intensive residential learning under the direction of a team of USF faculty members. Required residence associated with the seminars totals thirteen weeks. The seminars for the first three areas are three weeks in length. The fourth area seminar requires four weeks in residence.

Those seeking admission to the BIS Program must qualify for admission to the University of South Florida and for admission to the BIS Adult Degree Program. The USF Director of Admissions rules on the admission of an applicant to the University. The BIS Advisory Council rules on admission of an applicant to the BIS Degree Program.

On successful completion of the four study areas and on recommendation of the BIS Advisory Council, the Director of the BIS Program certifies the candidate to the Dean of the College of Liberal Arts, who makes the final recommendation that the degree be conferred. BIS Degrees are conferred at regular graduation ceremonies at the University.

Fees for the BIS Degree Program are as follows:

Fees
Application ........................................ $10.00
Diagnostic Testing & Evaluation .................. 50.00
1st Area Enrollment
   Independent-study .................................. 250.00
   Seminar ........................................... 250.00
2nd Area Enrollment .................................. 500.00
3rd Area Enrollment .................................. 500.00
Inter-Area Enrollment
   Independent-study .................................. 250.00
   Seminar ........................................... 300.00
TOTAL* ............................................. $2110.00

* Please note that the fees listed do not include such additional expenses as books, travel, and living expenses during seminars.

Students may not transfer credits (from the University of South Florida or any other institution) either in or out of the BIS Program.
College of
BASIC STUDIES

The College of Basic Studies provides that part of a formal university education which should be common to all graduates of the University of South Florida. All students enter the college as freshmen and must complete its requirements before entering one of the other colleges of the University.

Lower division courses are offered by the college in eight areas (see list under Waiver, below). Completion of six of these eight areas, including Functional English, satisfies the lower division basic studies requirement. In Foreign Languages the student may choose from more than one course (a year of Latin or Ancient Greek may be substituted for a functional modern language course); only one course from an area can be used to satisfy basic studies requirements. However, in the science area, the student may take both Biological Science and Physical Science. The lower division Humanities offering is available in five three-credit courses. The student may meet the Humanities requirement by completing any three of these courses.

Ordinarily a student would seek to complete his basic studies courses by the close of the sophomore year. In certain majors, owing to the prescription of required courses, it may not be possible to complete the six lower division basic studies courses within the first two years. In these cases, it is recommended that the "300" level basic studies courses, American Idea and Humanities, be scheduled in the junior year.

Waiver

Some entering students have already achieved competence in one or more areas of the basic studies. These students may request a waiver of one or more of the basic studies requirements. However, a specific high school unit may not be applied toward a waiver of more than one basic studies area. For example, high school chemistry may not be used toward the waiver of both biological and physical science. Applications for waiver must be completed in the Registrar’s Office during the first quarter the student is in attendance at the University. Routine approval will be granted when applicants meet the following conditions: (1) a score of 425 or higher on the Florida State-Wide Twelfth Grade Tests, 24 on the ACT, or 1075 on the CEEB; (2) a grade of "C" or higher in each of three or four years of relevant
high school work. A course which has been waived may not subsequently be taken for credit. Requirements specific to the area in which waiver is requested are as follows:

**Functional English:** No waiver available.

**Behavioral Science:** Evidence of competence acquired elsewhere.

**Biological Science:** Three or more years of high school science including biology, chemistry, and one additional unit other than general science.

(A student passing BIO 201, BIO 202 and BIO 203 with an average grade of "C" or higher in the three courses may waive CBS 205-206-207.)

**Physical Science:** Three or more years of high school science including chemistry, physics, and one additional unit other than general science.

(A student passing any two first year sequences in the Physical Sciences, i.e., CHM 211-212-213; PHY 211-212, PHY 213-214, PHY 215-216 or PHY 221-222, PHY 223-224, PHY 225-226; GLY 201, GLY 301, AST 201, AST 202, with an average grade of "C" or higher in the sequence may waive CBS 208-209-210.)

**Functional Mathematics:** Three or more years of high school mathematics including two years of algebra and one semester each of geometry and trigonometry, with "C" or better.

(A student passing mathematics courses MTH 203, 303 and 304 with an average of "C" or higher for the sequence may waive CBS 109-110.)

**Functional Foreign Languages:** Three or more years of one foreign language.

**American Idea:** Four or more years of high school social studies, including one year of world history and one year of American history.

**Humanities:** Evidence of competence acquired elsewhere.

Lower division basic studies requirements may be satisfied by independent study or credit by examination, according to the procedures described on pages 30-31 of this catalog. Students who have completed more than two college courses in the field of study concerned may not earn credit by examination. They may, however, take the examination and secure a waiver by scoring a "C" or higher.
Placement of Students in Language Classes

The appropriate placement of students in language classes is often a difficult matter calling for consultation with a member of the language staff. Generally, if a student has had four years of high school language, he should enroll in the first quarter of the third year of language; three years would put him in the second quarter of the second year; two years in the first quarter of second year; and one year in the second quarter of the first year. If a student’s background is inadequate, he may be allowed to drop back one quarter with the permission of a member of the language staff. If a student has had two years or less of a foreign language in high school five or more years previous to enrollment in a language at the University of South Florida, he may disregard the high school language courses and register in a beginning course.

Advanced Basic Studies Major

An Advanced Basic Studies Major consists of CBS 311-312-313, CBS 403-404, CBS 405-406-407, and CBS 409-410-411, plus a concentration of 18 quarter units in an upper level program approved by the adviser. Not more than 36 credits from a single program can be counted toward a basic studies degree unless the student is completing a double major. Students seeking a double major may petition to the dean’s office to waive the 36-credit limit. Students interested in an Advanced Basic Studies major are urged to inquire at the Basic Studies College office.

Humanities Major

Requirements for a major in humanities are 45 credits of upper level humanities courses (400- and 500-level), including HUM 591, and 9 credits in the creative or performing arts. A graduate program leading to a Master of Arts in Humanities Education is available; for requirements, see College of Education.

Basic Physical Education

The required program in Basic Physical Education is planned to build on the prior knowledge and experience of students. Those who have already obtained the necessary knowledge and all or part of the skills required may meet these requirements by proficiency examination or evidence of adequate prior experience. For others not so prepared, appropriate courses are offered.

The Basic Physical Education requirement applies to all students under age 21 at first full-time U.S.F. enrollment and consists of four courses. These should include: (1) Functional Physical Education, (2) one aquatic activity, (3) one individual or dual activity, and (4) a fourth course elected from any activity area. Transfer students should contact the Division of Physical Education for program evaluation. Prior military service is not a substitute for the Physical Education requirement.

Functional Physical Education (PEB 101) is a prerequisite to all courses except Beginning Swimming and must be taken through regular class enroll-
ment. This course may be taken during the first or second quarter of the freshman year, but must be taken during that year.

Normally a student will register for one course during each of his first four quarters. Three of the requirements must be completed before a student can be admitted to an upper level college and the fourth before he attains senior status.

Physical education proficiencies and enrollment in appropriate physical education courses will be determined individually for handicapped students by a joint decision of the student, Adaptives Coordinator, and the Director of the Student Health Center.

The three required courses other than PEB 101, may be met by whichever of the following methods are deemed most suitable to the students and staff:

1. By proficiency examination. Proficiency examinations may be attempted during the quarter a student takes PEB 101. There is no penalty for failing an examination. Examinations are not available for every activity listed in the curriculum. There are two parts to the proficiency examination: (1) a written test covering rules, history, strategy and basic fundamentals, and (2) a skill test in the chosen activity administered only to those who have successfully passed the written portion. The level of competency needed for successful completion of the written and skill tests is basically that of a student who has taken the course and received a grade of "B" or better.

2. By presenting evidence of adequate prior experience. If evidence presented indicates a high degree of skill in a designated area, the student is not required to take a proficiency examination. Current life saving certificates, membership on swimming teams, district, state or national ratings, established handicaps, two high school or college varsity awards are examples of evidence necessary to meet a Basic Physical Education requirement by prior experience.

3. By enrolling in one aquatics activity, one individual or dual sport and one activity elected from any area and subsequently receiving a passing grade.

No credit points are given for Basic Physical Education. For programs in Professional Physical Education, see the College of Education.
College of BUSINESS ADMINISTRATION

The College of Business Administration offers courses of study leading to both undergraduate and graduate degrees. These programs are designed to prepare individuals for business and government careers, and graduate education. It is the philosophy of the College of Business Administration to devote its resources to the continued growth of high quality undergraduate and graduate programs.

The undergraduate curriculum leads to a Bachelor of Arts in one of the following five major fields: Accounting, Economics, Finance, Management, and Marketing. The undergraduate programs are structured to accomplish the following objectives:

1. To give the student a broad foundation in general and liberal education, a thorough grounding in basic business courses, and some specific competence in at least one significant functional area of business.
2. To strengthen students’ powers of imaginative thinking, creative independent analysis, and sensitiveness to social and ethical values.
3. To instill in each student a desire for learning that will continue after he has graduated and taken his place in the community.
4. To convey to each student the spirit of pioneering, risk taking and progress which are essential to the continued development of the free enterprise system.

The graduate programs are structured to accomplish the following objectives:

1. To make professional education available to those qualified individuals who have selected specific career objectives in fields of business, government or education.
2. To support adequately the research activity so vitally necessary to maintain a quality graduate faculty and program.
3. To foster independent, innovative thinking and action as a professional individual.
A program of education for business leadership must be based on a foundation of comprehensive general education; consequently, most of this basic work must be taken prior to admission to the college. It should be further noted that approximately one-half of the work leading to the bachelor’s degree in business is required from academic areas outside of business.

Upon application, students who have fulfilled the following requirements will be admitted to the College of Business Administration:

1. Successful completion of at least four of the eight lower level courses in the College of Basic Studies.
2. Satisfactory completion of the four required physical education competencies.
3. Completion of 81 or more credit hours with a grade point ratio of 2.0 or higher.
4. Satisfactory completion of the foundation courses Elementary Accounting (ACC 201-202-203) and Economic Principles (ECN 201-202).
5. Minimum of nine quarter hours of college mathematics. MTH 211, 212, 213 (or equivalents) are strongly recommended.
6. Provisional admission is possible in some instances.
Transfer Students

From Junior Colleges: Junior college students should complete the program of general education as required by the junior college. Certification to this effect will be accepted as fulfilling the general education requirements of the University of South Florida. While completing the program of general education students should also be aware of the upper level requirements of the College of Business Administration. Note that these requirements include two quarters of college mathematics and completion of courses in accounting and economics principles. Two semesters of each of the above courses should be included in the junior college parallel program to satisfy upper level requirements at this institution. If scheduling permits, the student should also include a course in basic statistics.

All transfer students, particularly those not pursuing the parallel program should note that a maximum of nine quarter hours will be allowed for courses taken during the first two years of junior college study which are available only as 300 and 400 level courses in the College of Business Administration at the University of South Florida. However, no more than five quarter hours may be transferred for credit in the student’s major area.

From Non-Junior Colleges: Students attending a four year college who wish to transfer after two years should follow a program in general education similar to that required at the University of South Florida. The prerequisite courses in business subjects of accounting principles, economics principles, and mathematics should also be included in the first two years of study. Transfer credit will be allowed for all of the above courses. Any remaining courses after fulfilling the general education requirements and business prerequisites should be taken in such areas as mathematics, the natural sciences, the social sciences, and the humanities.

Requirements for Graduation

Graduation requirements are 180 quarter hours.

The breakdown of these 180 hours are 95 within the College of Business Administration and 85 hours outside the College of Business Administration further divided as follows:

(1) 57 hours of Basic Studies.
(2) 28 hours of general electives outside the College of Business.
(3) 50 hours of Business Core which includes ACC 201-202-203; ECN 201-202, 301, 331; GBA 361; 499; FIN 301; MGT 301; MKT 301.
(4) 27 hours in the major subject with a 2.0 grade point average in the major. (Accounting students also wishing to qualify as C.P.A.’s need additional courses; see under curricula and program, Accounting).
(5) 18 hours of Business Electives not in the student’s major field.
1. ACCOUNTING

Major Requirements: ACC 301, 302, 303, 411, 421, 423 and three of the following: ACC 323, 401, 402, 412, 422, 424, 425, 431. Students intending to take the C.P.A. Examination in Florida will need to take two courses in addition to those required for the major.

Business Electives: GBA 362, 371 and 9 hours of other business courses.

General Electives: These 28 hours must be taken outside the College of Business Administration. It is strongly recommended that all accounting students take SPE 201.

2. ECONOMICS

The Economics Department is committed to preparing the student, both major and non-major, with a strong background in the science of Economics.

Proper investigation of any science entails a universal presentation of the analytical and factual material of the subject matter.

With this thought in mind, the subject matter is taught emphasizing a theoretical framework which will allow the individual student to identify and solve economic problems.

Major Requirements: ECN 323, 401, and 17 hours of other Economics courses.

Business Electives: 18 hours in the College of Business Administration. International Trade majors are required to take FIN 351 and 13 hours of other business courses.

General Electives: These 28 hours must be taken outside the College of Business Administration.

3. FINANCE

Major Requirements: FIN 321, 411, 421, and 15 hours of upper level finance courses to be selected in consultation with major adviser. With the written permission of the major adviser, a maximum of 8 hours of upper level courses in related fields in the College of Business Administration may be substituted in satisfaction of finance electives.

Business Electives: Eighteen hours in the College of Business Administration, which must include ECN 323.

4. MANAGEMENT

Major Requirements: All majors take 18 common hours MGT 311, 321, 331, 341, 421, 431. Each major elects 9 additional hours from one of three options:

- Industrial Relations—MGT 461, 463, 465.
- Management Science—MGT 471, 472, 473.

Business Electives: 18 hours of courses in College of Business Administration to be selected in consultation with assigned major adviser. Strongly recommended is GBA 351. Other recommendations, depending upon option, are: FIN 411, 421; ACC 421, 422, 305, 425; MKT 413, 315, 411; GBA 371; ECN 431, 311, 313, 411.
General Electives: 28 hours outside the College of Business Administration. Strongly recommended are MTH 211, 212, 213. It is recommended that other selections be made from Psychology, Sociology, Speech, Political Science, Engineering in consultation with major adviser.

5. MARKETING

Major Requirements: 27 hours MKT 312, 315, 411, 413, 415, 419 and 3 other marketing courses as selected in consultation with major adviser from MKT 311, 316, 403, 405, 407, 409, 414, and 489.

Business Electives: 18 hours of courses in the College of Business Administration to be selected in consultation with major adviser. Suggested selections from: GBA 351, 371, 362; MGT 311, 321, 341; FIN 411, 421; ACC 421, 422, 305; ECN 351, 431, 437.

General Electives: 28 hours outside the College of Business Administration. It is recommended that marketing students select from courses in: Psychology, Sociology, Speech, English, Engineering in consultation with their marketing adviser. Strongly recommended are MTH 211, 212, 213.

* Courses of study will continue to be offered in Office Administration to satisfy requirements of those students previously admitted to the Office Administration program and those majoring in Business Teacher Education.

GRADUATE ADMISSION AND DEGREE REQUIREMENTS

Courses are offered in the College of Business Administration leading to the degree of Master of Business Administration and Master of Business Administration with specialization in accounting. Students should consult the graduate study section of this catalog for information on the requirements for admission to graduate study. The College of Business Administration will generally follow the same standards.

There is no requirement for a full time registration on campus for these degrees, but the student should consult the graduate adviser before registering for graduate courses.

The Master of Business Administration Program

Students applying for admission will have diverse backgrounds. Students with undergraduate majors other than business administration can be accepted into the M.B.A. program by taking certain business foundation courses which prepare them for graduate level courses. These 24 quarter-hours include the following courses: Accounting 501, 502; Economics 501, 502, 503; Finance 501; Marketing 501; and Management 501. 500 level courses may not be included in the 54 hour requirement leading to the M.B.A.

The program requires that the student satisfactorily complete a total of 54 quarter hours including: Accounting 601, 602; Economics 601, 603, 604, 605, 607, 608; Finance 601, 602; Marketing 601, 603; Management 601, 603, 615; and General Business Administration 601, 699.

The 54 quarter hour program is to be completed with an overall “B”
average (3.0 grade point ratio). In addition, a written and oral examination will be given near the end of the last quarter of work, on which the student must give a satisfactory performance.

In addition, a comprehensive written and oral examination will be given after the course work has been completed. The student must give a satisfactory performance on this examination.

The Master of Business Administration Program with Specialization in Accounting

It is contemplated that students applying for admission to this program will have a baccalaureate in Business Administration which includes a minimum of 36 quarter hours credit in Accounting. Students applying for admission who do not meet these prerequisites will be required to take additional courses. The number of additional courses deemed necessary will depend on the academic background of the individual students, and may vary from 27 quarter hours for a non-accounting business major to 61 quarter hours for a non-business major.

The program requires that the student satisfactorily complete a total of 48 hours including: ECN 601, 603, 605, 607; FIN 601; GBA 601; accounting concentration including ACC 605, 607, 609, 611, 621, 623; one senior level accounting course; and, nine quarter hours of electives to be selected by the student in consultation with his adviser.

The 48 quarter hour program is to be completed with an overall "B" average (3.0 grade point ratio). In addition, a written and oral examination will be given near the end of the last quarter of work on which the student must give a satisfactory performance.

In addition, a comprehensive written and oral examination will be given after the course work has been completed. The student must give a satisfactory performance on this examination.
College of EDUCATION

The College of Education places an emphasis on each student learning what is relevant for the world of today and on his getting deeply involved in his own educational process. Thus, the emphasis is on the student learning to do his own thinking about himself and his universe.

The College of Education is committed to a continuous and systematic examination of the professional program of teacher education. Promising programs are 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, coordinated through the University Council on Teacher Education. 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.

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. It is the task of the College of Education to give leadership to the instruction in subject matter and process, which means the total teacher education program.

BACHELOR OF ARTS DEGREE PROGRAM

The undergraduate teacher education program leads to the Bachelor of Arts Degree. It is an upper division program.

Admission Requirements

While each student admitted to the University is expected to have the qualifications to graduate, this does not necessarily mean that he has the qualifications to become a teacher.

Prospective secondary and K-12 teachers are enrolled in teacher education programs involving both the College of Education and the College of Liberal Arts.
Admission to the upper level teacher education program is contingent upon meeting the following minimum requirements:
1. Completion of the majority of Basic Studies
2. Completion of 75 quarter hours
3. An overall grade point ratio of 2.0
4. Additional criteria at the discretion of the admissions and selections committee (i.e. medical center, student affairs, speech and hearing clinic, etc.)

The student should initiate his application with the College of Education Central Advising Office (EDU 112) at the latest by the second week of the quarter in which he is eligible to be admitted.

Acceptance and retention in the program is an on-going and cumulative process which continues through the supervised teaching experience.

**Admission to Supervised Teaching Experience**

One full quarter of observation and supervised teaching in elementary or secondary schools is required. In certain specialized subject areas (i.e., Business Education, Special Education, Distributive Education) the student teaching-seminar experience may vary.

Special requirements for enrollment in the supervised teaching and seminar courses are:
1. Admission to the teacher education program.
2. Completion of an application for supervised teaching
3. An overall 2.0 grade point ratio
4. a 2.0 grade point average in the professional education sequence,
5. completion of at least two-thirds of teaching specialization with a minimum of 2.0 grade point ratio.

Application for student teaching should be made two quarters prior to term in which experience is desired. Forms may be obtained in student teaching office.

Students planning to enroll in the Cooperative Elementary Teacher Preparation Program should refer to statements on internship included under *Teacher Education Curricula and Programs* on page 76.
College Requirements for Graduation

A student to be certified by the College of Education as having completed its requirements must have earned 180 credit hours with a minimum overall grade point ratio of 2.0. An average of 2.0 or better also must be made in the student's professional education sequence and in his teaching specialization courses. Satisfactory completion of supervised teaching is required. A student must also have completed the major requirements in an approved teaching program (which includes general preparation, teaching specialization, and professional preparation) and passed the senior seminar in the College of Basic Studies. A minimum of 12 credits in professional courses and 18 credits in specialization courses must have been earned in residence. The student must complete a minimum of 45 hours after admittance to an upper level program.

SPECIFIC REQUIREMENTS

A minimum of 180 quarter hours including:

- General Preparation ...................... 56 or 57 quarter hours
- Professional Education Core .............. 36 quarter hours
- Teaching Specialization .................. 46 to 73 quarter hours

Recommendation for Florida Certification

The dean of the College of Education has the responsibility of recommending for Florida state teacher certification any applicant who graduates from the University of South Florida. The decision on whether to make the recommendation will be on the basis of the applicant's character, academic proficiency, commitment to teaching, emotional stability, personal and social qualities, and his demonstrated teaching ability during the internship period. Before recommending teacher certification, the dean will consult with various faculty members who have taught the student at the University.

NON-DEGREE STUDENTS SEEKING CERTIFICATION

A person who has previously earned a bachelor's degree and has a desire to satisfy teaching requirements may enroll in courses in which he has met the course prerequisite.

A holder of a bachelor's degree wishing to enroll in EDC 498 and 499 should file an intent to student teach with the College of Education Central Advising Office. Approval of the application by the Selections Committee of the College of Education and satisfactory completion of 12 quarter hours of course work in residence are prerequisite to registration in EDC 498 and 499 by students in this non-degree seeking category.

All students who have a total of 135 hours or above should register with Placement Services.
TEACHER EDUCATION CURRICULA AND PROGRAMS

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 Preparation (56 or 57 quarter hours)

Students majoring in Elementary Education, Elementary-Early Childhood, Elementary-Library Audio/Visual, or Mental Retardation must take CBS 101-102, CBS 201-202-203, CBS 109-110; CBS 301-302-303-304, any three of CBS 305-306-307-308, CBS 401, and either CBS 205-206-207 or CBS 208-209-210. They must also take PEB 101 and three additional quarter hours in Physical Education, at least one of which is to be in aquatic sports, (PEB 130-149). If substitutions are made, they must be part of a planned program.

Students in Education programs other than those listed above have the same general preparation requirements, except they have the option of substituting nine quarter hours of a foreign language or a second CBS Science sequence, for CBS 109-110.

2. Professional Education Core

The required courses in the professional education core are EDF 305 EDF 307, EDC 401, EDC 498, EDC 499 or the appropriate intern course described in the catalog, plus the Methods course(s), appropriate to the student’s specialization and an additional four quarter hours of approved education credits. Some of the areas in which they might profitably elect courses are: Guidance, Special Education, Tests and Measurements, Principles of Learning, Philosophy of Education, and Comparative Education.

3. Teaching Specialization Preparation (up to 73 credits)

Course requirements in the area of teaching specialization vary according to subject. The different specialization requirements are listed on the following pages.

A. ELEMENTARY EDUCATION

Students may pursue a program of elementary teacher preparation which provides continuous daily laboratory experiences in the local schools. Students electing this program must arrange to spend a minimum of two hours daily working in a variety of classroom situations with the local school instructional personnel. Internship credit is earned for this field experience which extends over a period of five quarters. The continuous field experience is in lieu of the full quarter of internship and related laboratory aide assignments.
(1) Elementary Specialization

The major consists of an elementary specialization sequence and a subject concentration sequence.

The 45 hours of elementary specialization courses include EDE 409, 411, 413, 415, 417, 419, 421, 423, 424, 425, 440.

A teaching concentration is chosen by elementary education specialist with the assistance of an adviser. This should include a minimum of 27 credit hours in a subject taught in the elementary school. With careful planning, the student may receive dual certification in elementary education or a secondary education field.

(2) Elementary-Early Childhood

Student interested in early-childhood teaching which includes pre-school and grades 1-3 should pursue a program leading to certification both in early-childhood and elementary education. This program includes 46 hours of course work as follows: EDE 409, 413, 415, 417, 419, 425, 426, 431, 433, 529, 531.

Students who desire to add early-childhood specialization to an existing major in elementary education may complete a planned program in consultation with their adviser.

(3) Elementary-Library-Audio Visual

Information on course work leading to dual certification in elementary and library education-audio visual education is given in Section B-3.

B. KINDERGARTEN THROUGH TWELFTH GRADE

Candidates meet teaching requirements for all grade levels from kindergarten through the senior year of high school.

(1) Art Education

Required courses are ART 201, 202, 301, 302, 401, 402, 411, 421, 431, 441, 451, 476; EDA 377, 379, 441, and 498; FNA 543, 553. Six hours of music, theatre, or dance. Six hours of electives in Art History, and nine hours of electives in Art Studio.

(2) Physical Education

A two year program is offered at the junior and senior year level for prospective physical educators. Students may only enter this program in the first quarter of each school year. All interested students should request a detailed description of this program to avoid complicating delays in their educational plans.

Direct requests to: Coordinator
Professional Physical Education Program
College of Education

The following courses constitute the program of study: EDP 255, 311, 321, 331, 312, 322, 332, 314, 365, 411, 421, 431, 412, 422, and 432.

An elective concentration of courses in the coaching of athletics is open
to students from all areas of study, including physical education. Required courses in this concentration are EDP 558 and 459. Electives may be selected from the following: EDP 469, 479, 489, 468, 478, and 488.

(3) Library and Audio-Visual Education (Learning Resources)

Dual certification in Elementary Education and in Library Education. Requirements include the professional core, the Elementary Education Program and a total of 36 quarter hours in Library Education/Audio-Visual courses.

The required EDL courses meet Rank III certification in library and audio-visual service. These courses are EDE 413, EDL 411, 412, 419, 513, 514, 515, 517, 518 and 524. Electives may be chosen with the consent of the adviser.

(4) Special Education

MENTAL RETARDATION

Students are prepared to become teachers of the mentally retarded. Thirty-two credit hours are required in the major area of specialization—either EDS 211 or 311, 312, 322, 423 I & II or 424, 529, 531, and EDF 303.

In addition, 37 hours are required in the area of Special Preparation for Elementary Teachers-Aesthetic and Recreational Learnings (13 hours), Communication Arts (9 hours), and Environmental Concepts and Understandings (15 hours).

SPEECH PATHOLOGY

Prepares professionals to work with speech, language and hearing impaired children and adults. A five-year program terminating in an M.A. degree in Special Education: Speech Pathology.

The following courses, or their equivalents, constitute the course of study—EDS 311, 322, 611, 699 and/or 579, 479, 531 or PSY 431.

SAI 371, 471, 571, 572, 573, 574, 575, 576, 577, 578, 579, or 675, 580, 598, 683; SPE 411, 503, 611; EDF 305, 307; EDC 401, 498; EDE 531; SSI 301; PSY 335; and the Process Core for the M.A. in Education.

Supervised clinical work in school environments is done in EDS 479 and 579.

Completion of requirements for the master's degree is required prior to certification for employment in the schools.

(5) Music Education

Programs in both instrumental and vocal music are offered. It is strongly advised that students elect a core in other relevant areas such as humanities, theatre arts, and art.

Instrumental music students must take MUS 212-213-214, 312-313-314, 412-413-414, two each of the following outside the family of the student’s major instrument: MUS 215, 245, 255, 265; 18 credits (12 intermediate level, 6 advanced level) of study on the major instrument and ensemble.
Three credits each in theatre arts, visual arts, and dance courses and FNA 543, 553; and ensemble.

Vocal music students must take MUS 212-213-214, 312-313-314, 412-413-414, 225, 335, 535; three credits each in theatre arts, visual arts, and dance courses and FNA 543, 553; EDM 435, 437, 439; and ensemble.

Special requirements: Placement examinations are required of all new registrants in musical styles (theory and history), and for admission to 300-level courses in applied music, (completion of the examinations is required before registration in music courses can be permitted); successful completion of the piano proficiency requirement as defined by the music faculty before admittance to upper level; participation in ensemble, excluding only the internship quarter; the presentation of a one-half recital in the major performing medium during the senior year; attendance at required recitals as scheduled. Electives are to be taken outside Music and College of Education.

C. SECONDARY EDUCATION

Candidates are required to meet specialization requirements in broad subject fields or in subject combinations. It is also possible for prospective secondary school teachers to add elementary school certification by following an approved program. The secondary school specialization requirements can be satisfied in more than 15 subject areas in six broad fields.

(1) English and English Related Programs

ENGLISH EDUCATION

ENG 201, 202, 203, 305, 306, 307, 321, 411, 517, ENG 335 or CLS 351, SPE 201 and 321, JNM 341 and 342, and 12 hours chosen from JNM 347, TAR 303, or any 500 English course and EDR 509, EDT 531 or EDL 518.

ENGLISH EDUCATION-SPEECH

ENG 201, 203, 305 or 306, 307, 335, 411, 517, 321, and SPE 201, 203, 321, 361 or 365, 491, 492, TAR 303 and 2 upper division Speech courses, and EDC 515.

ENGLISH EDUCATION-JOURNALISM

ENG 201, 202, 203, 305 or 306, 307, 335, 411, 517, a 500 English elective, SPE 201 and 321 and JNM 341, 342, 343 or 349, and 347 and EDT 463.

ENGLISH EDUCATION-FOREIGN LANGUAGE

ENG 201, 203, 305 or 306, 307, 321, 335, 411, 517 and SPE 201 and 36 hours in a language above the basic courses and including 301, 303, 305, 307, 19 hours of advanced work in that language, and EDX 449. SPE 321 is a recommended elective.
ENGLISH EDUCATION-LIBRARY

ENG 201, 203, 305 or 306, 307, 321, 335, 411, 517, SPE 201, and EDL 411, 412, 419, 513, 515, 517, 518, and one elective in Library Science and EDE 413.

ENGLISH EDUCATION-LATIN


(2) Foreign Languages

TWO FOREIGN LANGUAGES

Requires basic studies language requirements or their equivalent. In the major language (French, German, Italian, Russian, or Spanish), the student must earn an additional 35 credit hours, and in the second language an additional 26 credit hours.

The required courses are numbered 301, 303, 305, 306, and 307 (prefix determined by the particular language involved), plus 18 credit hours of advanced work in the major language and 9 credit hours work in the second language in courses selected with the adviser.

With permission of the Dean and after consultation with the adviser, a student may elect a single foreign language major. Forty-seven hours must be earned in the language beyond the basic studies requirements. Among these 47 credit hours must be the following:


In addition, 12 credit hours of work must be completed in language courses selected with the adviser.

LATIN-MODERN FOREIGN LANGUAGE

Requires 39 credit hours in Latin above the 200 level, and 27 credit hours in the modern foreign language. The Latin requirements are: CLS 301, 302, 303, 371, 401-402-403, 411-412-413, 517, 571. The modern foreign language requirements are the courses numbered 301, 303, 305, 306, and 307 (Prefix to be determined by language selected), plus 10 credit hours of work in the modern foreign language in courses selected with language adviser. In order to be certified to teach both Latin and the modern foreign language, the student must take both EDX 449 and EDX 465.

(3) Mathematics or Science

To teach at the secondary level the minimum requirements of the divisional major must be met. Major requirements in the Division of Natural Sciences are a minimum of 36 quarter hours in the discipline of major concentration and a minimum of 24 quarter hours in the division outside that discipline. These latter 24 hours must be approved by the student's
adviser and must include a minimum of three quarter hours at the 300 level or above. (Total program: 60 hours.) Concentrations are possible in biology, chemistry, mathematics or physics. A major in biology, chemistry, mathematics or physics will be accepted in lieu of the divisional major. MTH 423 and 424 are required of all prospective mathematics teachers. EDN 425 is recommended for all prospective physical science teachers, and EDN 427 is recommended for prospective biology teachers.

(4) Social Science

To teach at the secondary level the minimum requirements of a Social Science divisional major must be met. The Social Science divisional major requires 64 credits in the division with at least 40 credits being upper level. A teaching major requires 24 credits in one discipline within an approved program that includes courses in at least four disciplines. Teaching majors are offered in History, Geography and Political Science.

With special permission individual teaching majors may be planned in Anthropology, Economics, Geography, History, Political Science and Sociology. The student must meet the subject-area requirements of the major in the College of Liberal Arts in addition to the Florida Teacher Certification requirements.

(5) Individual Majors

With special permission of the dean of the College of Education, individual teaching majors may be planned in one or more teaching subjects to satisfy the specialization requirements. When this permission has been granted, the student must meet the subject-area requirements of the major in the College of Liberal Arts in addition to the Florida Teacher Certification requirements.

D. VOCATIONAL AND ADULT EDUCATION

Candidates planning to teach in county-wide adult and secondary education programs, junior college associate of arts and area vocational schools, continuing education centers, model cities programs, and other vocational, adult and technical schools may pursue one or more of the following specializations:

(1) Adult Education

Master of Arts degree program only

(2) Business Education

Requirements include ACC 201, 202, 203, ECN 201, 202, GBA 361 and 371. Also OAD 141, 142, 143, 251, 252, 253, 351, 361, and 461. OAD 251 and 253 may be replaced with special permission by electives in general education or liberal arts (e.g., Speech, Introduction to Teaching). A second special methods course is also required in the professional education sequence.
(3) Distributive Education

To qualify to teach in the area of Distributive Education, students must take 62 hours of course work. They must take 32 hours of business administration courses including ACC 201-202-203; ECN 201-202; and MKT 301. The remaining 30 hours will be in Distributive Education and approved selectives, and must include EDV 407, EDV 506, and EDF 303 or ECN 331. In addition, they must fulfill the state requirement of two years of distributive on-the-job work experience or complete 2100 hours of acceptable training. EDV 431, Supervised Field Experience: Distributive Education and Cooperative Education training experience are offered as suggested avenues to meet this requirement. (Acceptability of work experience will be determined by the Adult and Vocational staff at the University of South Florida).

(4) Industrial Education—(TBA)

(5) Technical Education—(TBA)

Master of Arts Degree Program

Plan I

A program of graduate studies designed for those with appropriate certification who desire to increase their competence in a subject specialization or secure training in one of the special service areas of education.

Plan II

A program of graduate studies designed for the holder of a non-education baccalaureate who desires to meet initial certification requirements as part of a planned program leading to the master of arts degree. (This program is not available in the area of elementary education.)

Qualified persons may pursue graduate study in the following majors:

| Art Education | Library and Audio Visual |
| Distributive Education | Mathematics Education |
| Elementary Education | Music Education |
| English Education | Reading Education |
| French Education | Science Education |
| Guidance | Social Science Education |
| Humanities Education | Spanish Education |

Special Education with programs in:

| Emotionally Disturbed | Potentially Handicapped-N-3 |
| Gifted | Speech and Hearing |
| Mental Retardation | |


Junior College Teaching

Astronomy
Biology
Chemistry
English
French
Geography
Geology
Humanities
Mathematics
Music
Physics
Psychology
Sociology
Spanish
Speech
Visual Arts

Additional programs for Junior College teachers will be added to those listed as other instructional division of the University are approved to offer the master's degree. General University rules for graduate study may be found in the Graduate Study section of the catalog.

Vocational and Adult Education

Adult
Business
Distributive
Industrial

Program Description

Master of arts degree programs consist of a minimum of 45 quarter hours, at least half of the program must be at the 600 level. Most specialization areas include the option of a thesis of three to six credit hours.

During the last term of enrollment, prior to completion of degree requirements, the candidate must perform satisfactorily on a comprehensive examination.

Elementary Education

This program is a 45 quarter hour sequence, at minimum, requiring full certification as an elementary teacher for admission. There are four components of the program:

1. PROCESS CORE (16 hours)

Students will take a minimum of one process core course prior to the 12-hour level. All students will be required to take EDF 607, Foundations of Educational Research, as part of their graduate program. Competencies indicated by undergraduate background and qualification tests prior to admission will determine waiver of, or enrollment in:

(a) EDF 605, Foundations of Measurement
(b) EDF 611, Psychological Foundations of Education; or EDF 613, Principles of Learning
(c) EDF 621, Socio-Economic Foundations of Education; or EDF 623, History of Education; or EDF 625, Philosophy of Education

2. EDE 603, SEMINAR IN CURRICULUM RESEARCH (4 hours)

3. LIBERAL STUDIES (0-9 hours)

For the purpose of broadening and enriching the total education experience of the student, selected courses may be taken outside the process core and the specialization area.
4. SPECIALIZATION (27 hours minimum)

Students pursuing the master's degree in elementary education are required to present credit in the following courses: EDE 603, 609, and 613.

(a) Elementary Curriculum Emphasis: Course work should be selected from EDE 611, 615, 617, 619, and 621. Additional work is available through consent of the adviser as part of a planned program.

(b) Reading Emphasis: Three courses from EDR 530, EDE 611, EDR 631, EDR 632, and EDL 518 or EDL 605 are required.

(c) Supervision Emphasis: EDC 661, 671, and EDE 641 are required.

(d) Early Childhood: Individually planned program to include EDE 527, 529, 531, 539.

Secondary and K-12 Program—Plan I

(for the teacher fully certified in an appropriate field)

1. PROCESS CORE (16 hours)

Students will take a minimum of one process core course prior to the 12-hour level. All students will be required to take EDF 607, Foundations of Educational Research, as part of their graduate program. Competencies indicated by their undergraduate background and qualification tests prior to admission will determine waiver of, or enrollment in:

(a) EDF 605, Foundations of Measurement

(b) EDF 611, Psychological Foundations of Education; or EDF 613, Principles of Learning

(c) EDF 621, Socio-Economic Foundations of Education; or EDF 623, History of Education; or EDF 625, Philosophy of Education.

2. CURRENT TRENDS COURSE IN TEACHING SPECIALIZATION (4 hours)

3. SPECIALIZATION (27 hours minimum)

A. Secondary Fields

(1) ENGLISH EDUCATION

This program is a 52 hour program; the first exemption qualified for in the Process Core (above) may reduce the number of required hours to 48.

The students must score at least 500 on the Verbal Aptitude section of the GRE or 550 on the Advanced Literature test of the GRE.

PLAN I—Required for admission: A Bachelor’s degree in English Education from a recognized institution, or Rank III certification in English from the State of Florida or its equivalent. Students who hold a Bachelor's degree and meet the minimum standards for Rank III certification in English but not in Education may enroll in the program as a non-degree seeking Graduate student, complete requirements for certification and subsequently use not more than 12 quarter hours of relevant work toward completing the Education requirements for this degree. Requires at least 32 hours of English as outlined below.
PLAN II—Required for admission: A Bachelor’s degree in English from a recognized Liberal Arts institution of higher learning. Requires at least 28 hours of English as outlined below.

Course Sequence: Required of all students: ENG. 623 (to be taken within the first 12 hours of English work) 1 course in ENG 683 and ENG 515, 517 and 531 (unless an equivalent undergraduate course is offered for admission).

Remaining courses must be equally divided between the two groups below, with at least half the work done at the 600 level.

Group I—ENG 518 or 535, 501, 502, 503, 505, 507, 519, 520, 521, 559, 655, 657 and 659.

Group II—ENG 513, 523, 527, 528, 667, 695, 615, and 687.

(2) HUMANITIES EDUCATION

A teaching certificate in fine arts, language, literature, music, or in special cases in a related subject is required for admission. The program in Humanities consists of 27-45 quarter hours selected from the following with the advice of the adviser in the field of specialization: HUM 535, 536, 537, 539, 540, 541, 542, 543, 545, 581, 611, 623, 681, 683, 691. The last is required. Up to nine hours may be substituted for the above from courses outside of Humanities with the consent of the adviser in Humanities.

(3) MATHEMATICS EDUCATION

Before the 12-hour level the student must demonstrate to the chairman of the Mathematics Department that he has the competence in Mathematics to undertake the program.

A maximum of nine quarter hours may be taken from MTH 405, 406, 407, 409, 421, and 422. Any 500-level MTH courses and any other 600-level MTH courses may be included in the planned program.

(4) SCIENCE EDUCATION

Biology—Before admission to the degree program, the student must have had the equivalent of the following undergraduate courses: BIO 201, 202, 203, and 331-332, twelve additional quarter hours in biology, and CHM 211, 212, 303, and 321. A minimum of 27 quarter hours will be taken from the following: ZOO 313 or 516, BOT 311, BOT 421, ZOO 311 or 312, BIO 415 or 351, BIO 445 or 565. CHM 551 may be substituted for any of these areas.

Chemistry—Before admission to the degree program, the student must demonstrate to the Chemistry Department that he has the competence to undertake the program. Before a degree is conferred a student must pass an examination given by the chemistry staff in inorganic, organic, analytical, and physical chemistry. Specialization in chemistry shall consist of at least 27 quarter hours.

Physics—Before admission to the degree program the student must satisfy the chairman of the Physics Department that he has the competence in physics to undertake the proposed program. He will take 27 or more credits approved by his adviser from the following courses, not more than
13 credits of which may be from courses numbered below 500. Students who can satisfy the chairman by transcript or examination that they have had 42 or more credits from the courses listed below may take a minimum of 18 credits in physics and devote the remaining nine or more to other fields.

PHY 305, 307, 309, 331, 341, 405, 407, 421, 437, 481, 501, 507, 509, 523 and 551. Any 600-level course in physics may be substituted for any course above.

(5) SOCIAL SCIENCE EDUCATION

Each program is individually designed in consultation with the adviser. Not more than one-half of the specialization (exclusive of thesis credit) may be in any one social science discipline or program.

B. K-12 Certification Areas

(1) ART EDUCATION

(a) Art Education: a minimum of eight credit hours from EDA 660, 661, and 682.

(b) Art Studio: a minimum of 12 credit hours.

(c) Art History: A minimum of three credit hours.

(2) GUIDANCE

The guidance program typically requires twelve credits from the Process Core including EDF 605, EDF 607, and one of the following: EDF 621, 623, or 625. Additional course requirements depend upon the major concentration in either elementary school guidance or in secondary school guidance.

Elementary School Guidance

Specialization requirements total 34 credits and include EDG 581, 603, 607, 611, 613, 617, 621, 625, 633.

Requirements in related fields total 32-33 credits and include PSY 433, EDE 527, EDF 613, SOC 535, SOC 651, either SOC 543 or 641, EDE 609, and EDS 610.

Secondary School Guidance

Requirements in Specialization and related courses total 34 credits and include EDG 581, 603, 607, 611, 619, 623, 627, 633, PSY 433, EDF 613, and an approved elective.

Plan II is available in both specializations and requires EDC 501 and EDG 691 in addition to minimum requirements.

(3) LIBRARY/AUDIO-VISUAL EDUCATION

In consultation with the graduate adviser, a program will be planned which may include a minimum of 45 hours of undergraduate and graduate credit in library and audio-visual service which meets Rank II state certification requirements. The individual who has no background in the field normally will need to take one or more prerequisite courses which may not apply to the MA degree program. Required courses for all students
are EDL 513, 515, 517, 518, 523, 600, 601, and 612. EDL 600 and 612 are foundations and administration courses which should be taken at the beginning of the program. Library specialists should also take EDL 611. EDL 605 is required of all students who have not had EDE 413 within the past ten years. Additional courses for audio-visual specialists are EDL 508, 607, 621, 623 and 629. Electives for all students may be chosen from the five audio-visual courses listed in the preceding sentences as well as from EDL 514, 524, 603, 605, 609, 615, 625 and 681.

(4) MUSIC EDUCATION

Programs in both instrumental and vocal music are offered. At least 27 hours are taken in one of these areas. A placement examination is required of all new registrants in musical styles. Each candidate must meet the undergraduate level of piano proficiency before the quarter in which he expects to graduate. Participation in ensembles is required for at least three quarters.

Two plans are available to the candidate: 45 hours plus thesis or recital, or 54 hours without thesis or recital.

Vocal Majors: 7 to 14 credits in music education, including EDM 601, 635, and 614; 4 to 8 credits in music literature, including MUS 603; at least 4 credits in music theory; and at least 4 credits in applied music.

Instrumental Majors: 7 to 14 credits in music education including EDM 601, 617 and 633; 4 to 8 credits in music literature, including MUS 601; at least 4 credits in music theory; and at least four credits in applied music.

(5) READING EDUCATION

The Reading Education program requires 8-16 hours from the Process Core. Candidate must have teaching certificate and three years teaching experience in classroom or reading clinic.

Specialization in Reading Education shall include a minimum of 36 hours, including EDE 609 or EDR 509, EDR 631, 632, 633, 634, 635, EDF 605, 617 and EDL 518. (candidates who have had a children’s literature course at either graduate or undergraduate level may take an elective in lieu of EDL 518). Electives may be chosen from the following courses: ENG 517, EDE 611, EDE 531, EDS 571, EDS 574, EDS 676, EDC 661, PSY 613.

(6) SPECIAL EDUCATION

The Emotionally Disturbed

The basic intent of the program is to train educators for emotionally disturbed children. This training prepares teacher-consultants who can function in public, private, or residential schools.

Necessary conditions for admission beyond the requirements of the College of Education are that students must have a teaching certificate and have successfully taught a minimum of one year.

Of the 48 credit hours needed for graduation, a minimum of 30 credit hours are allocated to the area of specialization. The equivalent of EDS 531, 610, 611, 632, 633 and 639 are required of all students. Additional courses and electives are jointly planned by the student and his adviser.
The Gifted

The gifted child program includes both one year and two year graduate level programs. The purpose is to train an individual to identify and prescribe curricular adaptation for gifted children. The course of study provides the student with basic information concerning gifted children, their psychology and needs, as well as builds an area of liberal arts competence in one or two areas.

Plan I

Through a Plan I type of program an experienced, certified teacher can anticipate preparing for teacher-consultant roles in the area of the gifted in four quarters.

A minimum of 28 credit hours in the area of specialization is required. Included among the courses usually required are EDS 531, 541, 550, 551, 559, 610, 611.

An individually tailored, Liberal Arts sequence of from 14 to 28 quarter hours is also a requirement of the program.

Plan II

An individual with a Liberal Arts undergraduate major may prepare as a teacher-consultant of the gifted through Plan II.

The student will be expected to take a minimum of 28 quarter hours in the area of specialization. In consultation with his adviser, he will choose from the following: EDS 531, 541, 550, 551, 559, 611, 610; EDR 631, 632; EDT 631; EDN 637, 639, 641; EDE 611, 613, 615, 617, 619; EDW 643.

An individually tailored Liberal Arts sequence of from eight to 24 hours is also a requirement of the program.

Mental Retardation

Advance preparation for the purpose of becoming a better teacher of the mentally retarded or for becoming a supervisor of teachers of the retarded is provided in the course of study.

A minimum of 30 credit hours is selected from Special Education courses with an emphasis on mental retardation-EDS 529, 541, 611, 612, 613, 620, 621, 622, 631, 699. EDS 620, 621, and 622 are required of all students in the program.

The Potentially Handicapped: Grades N-3

Plan I

The courses of study is designed to prepare experienced teachers to teach young children who seem likely candidates for future Special Education services. (This program was formerly titled "Varying Exceptionalities"). Early attention by these professionals to the prevention and the amelioration of handicapping conditions permit many children to later perform satisfactorily in regular educational programs. Those children who need special services immediately can be identified and provided such services earlier than otherwise.
A minimum of 28 quarter hours in the area of specialization is requisite to successful completion of the Plan I program for teachers of the Potentially Handicapped. The individualized program will include courses to be taken from the following: EDS 541, 610, 611, 622, 632, 649, 675; EDE 527, 529, 530, 531, 609; EDR 530; EDC 510.

Plan II

Individuals with a non-education baccalaureate can prepare for the teaching of Potentially Handicapped children through Plan II. Ordinarily, it will take more than one academic year to complete the program.

The individually tailored program will consist of a minimum of 28 quarter hours in the area of specialization—EDS 541, 610, 611, 622, 632, 649, 676; EDE 413, 415, 426, 527, 529, 530, 531, 609; 617, 619; EDC 510; EDR 530.

Speech Pathology

A five-year program terminating in an M.A. in Special Education: Speech Pathology is available to undergraduate students. It is described on page 78. Students who already have a baccalaureate degree in Speech Pathology or a related area (such as Speech, English, Psychology, Education, Nursing, and others) are encouraged to enter the graduate program in Speech Pathology. They must take the requirements of the fifth year of the Speech Pathology sequence. The prerequisites to the courses in the fifth year may be waived by demonstration of proficiency or by electing suitable substitutes.

Requirements of the fifth year are EDS 531 or PSY 431; EDS 611, 699 or 579; SAI 576, 577, 578, 579, 580 and the Process Core for the M.A. in education. In addition, three to six hours must be taken in SAI 698: Practicum in Speech Pathology.

Planning of such a graduate program must be approved by a speech pathology adviser.

C. Vocational and Adult

This program consists of a 48 hours sequence with four components for teachers (non-teachers or teachers from other than Adult and Vocational areas must follow Plan II, taking EDC 501 and an internship of 8-15 hours).

1. PROCESS CORE (4-16 hours)

Students will take a minimum of one process core course prior to the 12-hour level. All students will be required to take EDF 607, Foundations of Educational Research, as part of their graduate program. Competencies indicated by their undergraduate background and qualification tests prior to admission will determine waiver of or enrollment in:

(a) EDF 605, Foundations of Measurement
(b) EDF 611, Psychological Foundations of Education; or EDF 613, Principles of Learning
(c) EDF 621, Socio-Economic Foundations of Education; or EDF 623, History of Education; or EDF 625, Philosophy of Education.
2. CURRENT TRENDS IN TEACHING SPECIALIZATION (4 hours)

3. SPECIALIZATION (25 hours minimum, and may be as much as 48 hours)

4. RELATED ELECTIVES (0-16 hours)

A. Adult Education

In consultation with the graduate advisor, a program will be planned which will include a minimum of 45 hours of undergraduate and graduate credit in a basic teaching specialization, thereby meeting the State certification requirements for that field. Found required courses will be determined with all students from: EDU 445, 507, 511, 621, 631, 687.

The process core of twelve credits or exemption by examination is common to all Vocational and Adult master's candidate programs.

Requirements in a related area may include a concentration of courses in one of: psychology, sociology, guidance, administration, complementary basic, or a vocational field.

Plan II is available in this specialization and requirements include an internship and a curriculum course.

B. Business Education

(1) Appropriate College of Business Administration courses in Accounting, Economics, Finance, Management, Marketing and Office Administration (22 quarter hours maximum).

(2) Business Education—minimum of 12 hours from EDV 506B or 503B, EDV 507, and EDV 687B.

(3) Selective courses from which to choose in Vocational and Adult Education—EDV 407, EDV 511, EDV 431B, EDV 445B, EDV 480B, EDV 503B, EDV 504B, EDV 621B, EDV 641B, EDV 651B, EDV 661B, EDV 671B.

(4) Selected courses in a related area such as Guidance Special Education, Business Administration MBA courses, Junior College, Administration and Supervision (4-12 hours).

C. Distributive Education

(1) Appropriate College of Business Administration courses in Accounting, Economics, Finance, Management, Marketing, and Office Administration. (22 hours maximum)

(2) Distributive Education—minimum of 12 hours from EDV 507, 506, 445, 511, 671, 661, 431, 651, 480, 621, 641, 504, 503.

(3) EDV 687, Seminar in Distributive Education Research

(4) Selected courses in a related area such as Guidance Special Education, Business Administration MA courses, Junior College, Administration and Supervision (4-12 hours)
D. Industrial Education

Before admission to a degree program, a student must have met certifiable vocational or industrial work qualifications. In addition to the Process Core requirements, EDV 631, 651, 661, 671, and 687 are Specialization requirements. Other courses totaling a minimum of 48 quarter hours will be a part of the student’s program which he will plan with the graduate advisor for industrial education.

E. Technical Education (TBA)

Secondary and K-12 Program—Plan II
(for the liberal arts graduate seeking initial certification)

The program outlined below is designed for the person who has completed liberal arts bachelor’s degree requirements with little or no work in professional education and who desires to earn a master’s degree and meet certification requirements for secondary school teaching. Completion of an undergraduate major, or its equivalent, in the intended teaching field is assumed.

The components of the program are:

1. PROCESS CORE (20 hours)
   - EDC 501, Curriculum, and Instruction: Secondary
   - EDF 605, Foundations of Measurement
   - EDF 607, Foundations of Educational Research
   - EDF 611, Psychological Foundations of Education
   - EDF 621, Socio-Economic Foundations of Education; or EDF 623, History of Education; or EDF 625, Philosophy of Education

   Any process core course, except EDF 607, may be waived by examination if the student has had an appropriate undergraduate course. A minimum of one process core course must be taken prior to the 12-hour level.

2. CURRENT TRENDS COURSE IN TEACHING SPECIALIZATION (4 hours)

3. SPECIALIZATION (minimum of 27 hours)

   An individually planned graduate major in the College of Liberal Arts in the teaching field or in an appropriate College of Education program for K-12 specialists. See Specialization section under Plan I, above, for description of major requirements.

4. INTERNSHIP (9-15 hours)

   A regular full quarter internship and seminar block, EDC 498 and 499, for 15 hours credit. In the case of an in-service teacher or the student who is placed in a full-time paid internship, enrollment will be in EDC 691 for eight hours credit. Both types of internship involve planned observation and supervision by a member of the University faculty and a secondary school staff member.
The University of South Florida has developed a program for junior college teachers which leads to the master of arts degree and Florida State Department of Education certification at this level. The College of Education in close cooperation with the College of Liberal Arts has formulated the program. It is now being expanded to include the substantive disciplines of other colleges of the University and will continue to expand as masters degree programs are approved in new fields which are appropriate for junior college teaching. Information regarding programs not listed below should be directed to the Office of the Dean of the College of Education.

The Junior College programs approved as of January 1, 1969 are:

Astronomy  Geology  Psychology
Biology    Humanities  Sociology
Chemistry  Mathematics  Spanish
English    Music  Speech
French     Physics  Visual Arts

A. ADMISSION AND ADVISING

Because of the unique character of the Junior College Program which integrally involves two colleges of the University, there are admission and advisory regulations which go beyond those listed in the section dealing with Graduate Study.

While application for admission to the program may be made in either the office of the Dean of the College of Education or in the divisional office of the student's field of specialization, action on all applications is the minimum scores of 600 of the National Teachers Examination or 800 on the combined verbal and quantitative aptitude tests of the Graduate Record Examination. Duplicate sets of the student's complete record will be on file in both offices, with the College of Education charged with the responsibility of making official recommendations for certification to the State Department of Education and for the granting of the degree to the Vice President for Academic Affairs and to the Registrar.

Students in this program will have two advisers, one in the College of Education and one in the area of the student's major field. The education advisor is the chairman of the Junior College Program or one assigned by him; the major field advisor will be assigned by the departmental chairman of the student's substantive field. The two will constitute the student's intercollege committee which supervises the student's individual progress, plans his program and recommends him to the deans of the two colleges, or their representatives, for admission to candidacy and for graduation. They also submit to the Dean of the College of Education their recommendation for Junior College Certification in his major field by the Florida State Department of Education.

B. THE PROGRAM

Consists of a minimum of 45 quarter hours, plus an internship of (0-9) hours if deemed necessary.
1. **Specialization (36 hours)**

Typically, the student's program will include 36 quarter hours of graduate work in a field of specialization. The specialization sequence to be completed will be worked out in consultation with a designated major field advisor. This "typical" program is based on the assumption that the student has an undergraduate background in his specialization area which is roughly equivalent to the pattern of the appropriate University of South Florida major. Students admitted without such preparation may be required to correct deficiencies. By the same token, the unusually well prepared student may be permitted to take fewer courses in his specialization area, substituting approved electives from other fields of study.

2. **Professional Education (9-18 hours)**

   (a) Courses in Higher Education (9 hours)
   
   EDH 651, The Junior College in American Higher Education (4)
   EDH 653, Seminar in College Teaching (5)

   (b) EDC 691, Internship (0-9 hours)

Those students who have not met the internship requirement for certification (up to nine hours credit in internship or two years or more of successful full-time teaching experience) must complete EDC 691, Internship. Typically, the internship will consist of full-time supervised teaching for one quarter or part-time teaching for two quarters. At least one-half of the internship must be in a junior college, the other half being left to the discretion of the student's committee. Internship is a function of the College of Education and supervision of the internship is the responsibility of the Education advisor, but the major field advisor should be involved. In some cases students may be placed in salaried internship positions.

Those students who have met an internship requirement or who have had two years or more of successful full-time teaching experience prior to admission to the program will not normally be required to take EDC 691, Internship. This does not preclude the possibility of an internship for less than 9 quarter hours if the advisors deem it to be desirable.
College of ENGINEERING

Program Information

The College of Engineering takes a modern approach to the education of tomorrow's engineers which provides for individual development both in technical competency and in human values. As our society has become more complex, so has the array of problems to be solved by the engineer. Even now, research engineers are working on such projects as nuclear spin gyroscopes to provide guidance for spacecraft, and on the development of instrumentation for exploration deep in the oceans. Others are engaged in developing artificial body organs such as hearts and kidneys, while some are designing bridges and highways. Still others have become manufacturers and sales engineers. Many have assumed top managerial responsibilities in almost all fields of endeavor.

The College has developed its programs with an emphasis in three broad groupings of engineering activity—design, research and the operation of complex technological systems. Students who are interested in advanced design or research should pursue the Five Year Program leading to a Master of Science in Engineering. Other students interested more in operational responsibilities may wish to complete their initial engineering education at the baccalaureate level. For this purpose a Bachelor of Science in Engineering is offered which provides 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.

While the baccalaureate degree is considered the minimum educational experience for participating in the Engineering Profession, students 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 Profession is involved in some form of post baccalaureate study. Engineers are earning advanced degrees in ever increasing numbers in order to obtain the information and training necessary to meet tomorrow's technological challenges. All are faced with the continuous problem of refurbishing and updating their information and skills and most are obtaining advanced information by means of seminars, special institutes and other such systems designed for this purpose.

Because of the broad range to today's engineering activity and the increase in scientific knowledge with its many inter-relationships, it has
become increasingly difficult to maintain the traditional identification of engineering effort such as electrical, mechanical, and so forth. Many users of engineers have abandoned such descriptions of engineering work in favor of more functional descriptions of their activities. The College has therefore organized its programs on a somewhat different arrangement than those providing traditional degrees and awards degrees with a unified designation, M.S. in Engineering and B.S. in Engineering.

Both the Master of Science and Bachelor of Science 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 a program of specialization that has been approved by his upper level advisor. Students wishing to pursue course work commonly associated with such traditional degree programs as aerospace engineering, chemical engineering, civil engineering, electrical engineering, industrial engineering, mechanical engineering, etc. can do so within the framework of the program; however, each department of the College has program flexibility. Students wishing to arrange individual programs of an inter-departmental or inter-College nature can do so with the approval of his upper level advisor. For the student following the Five Year Program leading to the Master of Science degree, a design or research project is completed during the senior and fifth year which enables the student to focus attention on an Engineering problem of major interest. The problem selected may relate to any topic of engineering endeavor (space, the oceans, nuclear power, urban transportation, micro-electronics, etc.) for which there is sufficient faculty experience to guide the project.

The program leading to the Master of Science in Engineering degree is an integrated program of 246 quarter hours and the Bachelor of Science in Engineering degree program requires 201 quarter hours. Both programs include the common course work core of 152 quarter hours.

**General Requirements**

The College of Engineering is organized as a professional upper division and graduate college within the University. Students will normally be admitted to the college upon successful completion of a minimum of two years of college level work, and following the completion of their third year (junior level) requirements will elect, with the advice and approval of an engineering faculty committee, to pursue either a professional program in engineering leading to the master's degree or to terminate their programs with a baccalaureate degree.

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, as well as full programs in the social sciences and humanities, are most important to success in any engineering college. A foreign language, while not a necessity, provides a desirable background for students, many of whom will continue for advanced study.

Junior college students planning to transfer to the University of South Florida's engineering program at the junior level should plan to graduate from
their respective junior colleges, thus completing their general education requirements and as much of the mathematics, science and engineering core course work as is available to them. The University's College of Engineering is available to assist junior colleges in the development of course material and in the training of staff for their offering of applicable core pre-engineering course work.

All students admitted to the College should immediately ensure that they are assigned an upper level adviser. As specialization programs are established only with the approval of the upper level adviser, this initial step is most important. Upper level students will be assigned an adviser based upon their indicated interests. Students may change advisers providing the proposed new adviser is willing to accept the student and the change is approved by the Office of the Dean. Students should report to the Office of the Dean to confirm their adviser assignments.

Some prospective students who are considering pre-engineering at the University of South Florida may lack certain preparation in high school and may elect to follow several programs which will assist them in overcoming their deficiencies. One alternative might be that such a student would select a summer program at the University of South Florida to update himself in mathematics and the physical sciences. Another alternative might be for the prospective engineering student to take some remedial work and a less accelerated program at the University of South Florida. For financial or other reasons, students may wish to avail themselves of the state's system of junior colleges which offer a wide range of course work, and many of which offer full programs in pre-engineering (first two years course work).
Departments

The supervision of the academic program for the College is the function of five organizational units, each having a chairman responsible for the programs, faculty, laboratories and students assigned to the unit.

Pre Engineering

This unit will assist the student prior to his admission to upper division engineering. This same unit may also assist students who have been admitted to upper division but who lack lower level prerequisite course work, as in the case of a student holding a degree but seeking a second degree in engineering. Junior College transfers who have not completed prerequisite material will also be advised by the faculty of this unit.

Electrical and Electronic Systems

The programs of this department provide upper level and graduate study in all areas fundamental to Electrical Engineering and the electrical sciences; circuit analysis and design, electronics, communication, electromagnetics, control, solid state, systems analysis, electronic computer design, etc.

Energy Conversion

This department provides upper level and graduate instruction relative to the conversion, utilization, control and measurement of energy and the design of machines and devices necessary in our modern society. It offers a program in Mechanical Engineering as well as more specialized offerings in thermodynamics, heat transfer, environmental control, machine design, analog simulation, instrumentation and control, nuclear power, etc.

Industrial Systems

Upper level and graduate programs are provided by this department relative to the design, evaluation, and operation of a variety of industrial systems ranging from chemical plants to service industries. Such topics as plant facilities design, production control, measurement and methods design, unit operation, chemical process calculations, economic evaluation, etc. are studied along with computers, operation research and statistical techniques. Industrial and Chemical Engineering programs are available as well as advanced work systems analysis and Engineering Administration.

Structures, Materials & Fluids

Contemporary problems in engineering tend to be interdisciplinary in nature and frequently require the understanding and effective application of the principles of structures, engineering materials, fluid and solid mechanics. In the formation of the College, these subjects have been collected and unified into one department—Structures, Materials and Fluids (SMF). In addition to traditional Civil Engineering, Engineering Mechanics, and Materials Science disciplines, the department offers curricular elements to serve the Aerospace and Hydrospace technical fields.
Upper Division Admission Requirements

Students may be admitted to the College of Engineering upon completion of a minimum of 90 quarter hours of college level course work with an average of 2.0 on a 4.0 system ("C" average). All admissions are subject to the regulations of the University and the approval of the academic committee of the College. It is expected that students seeking upper level college admission will have completed their basic studies core requirements (general education requirements for transfer students) and will have made substantial progress in fulfilling their lower division mathematics, science and pre-engineering course work requirements in order to complete their professional program or baccalaureate in minimum time.

Engineering Core and Specialization

Both the five year and four year curricula of the College of Engineering are founded on a common core of course work which is required of all students and provides for a broad education as well as a foundation for the work in the several areas of specialization. Students who meet the requirements for upper level admission but who have a deficit in the lower level material may complete this work while registered in the College and will be assigned to a special adviser who will assist them in problems that may exist in arranging their programs and courses. Course work identified as 400 or higher is considered as professional level work and students enrolling for this work must have either been admitted to the upper level or have received permission from the Office of the Dean to attempt this work.

The core and specialization requirements for both the master's degree and the baccalaureate program are as follows:

1. CORE REQUIREMENTS (152 quarter hours minimum)

   BASIC STUDIES CORE REQUIREMENTS (35 quarter hours minimum)

   Prospective engineering majors must take CBS 101-102, 301-302-303-304, any three of CBS 305-306-307-308, and nine quarter hours of Behavioral Science, Biological Science, or a foreign language. Freshmen and sophomores will normally fulfill the additional basic studies requirements in Physical Science and Functional Mathematics by completing the mathematics and science core course work required in the engineering program with a grade of "C" or higher in each. Those not meeting these conditions will be expected to complete CBS 208-210 and 109-110 either by examination or by enrolling in these courses.

   MATHEMATICS AND SCIENCE CORE REQUIREMENTS (49 quarter hours minimum)

   The student must take MTH 302, 303, 304; CHM 211, 212, 213; PHY 221, 222, 223, 224, 225, 226. Students must also take MTH 305, 401, and PHY 323 or appropriate individual substitutions as approved by their upper level advisor.
ENGINEERING CORE REQUIREMENTS (56 quarter hours minimum)


HUMANITIES OR SOCIAL SCIENCE CORE REQUIREMENTS (12 quarter hours minimum)

The Student must take nine quarter hours of approved electives at the 200 level or above from these areas, and he must also take the Senior Seminar (CBS 401) required of all degree candidates.

2. FOUR YEAR PROGRAM (Baccalaureate Degree)

The program consists of a minimum of 152 quarter hours of core course material plus 49 quarter hours of specialization approved by the student's upper level adviser. The degree, Bachelor of Science in Engineering, is awarded upon successful completion of the program.

3. FIVE YEAR PROGRAM (master's Degree)

This program consists of a minimum of 152 quarter hours of core course material plus 94 quarter hours of specialization including a maximum of 18 hours of design or research project. Students are admitted to this program early in the beginning of their fourth year of study based on an evaluation by the faculty of their department. Unlike the traditional Master's Degree which is attempted as a fifth year after completion of the baccalaureate degree, in this program both the fourth and fifth years are open to graduate level course work and additional calendar time is available for design or research projects.

The program leads concurrently to both the Master of Science in Engineering and the Bachelor of Science in Engineering with the specialization phase of the program being individually arranged and involving course work, design, research and/or operational experience. Should the student be unable to complete his full five years, the baccalaureate can be awarded. Either an engineering report or a research thesis is required.

Other Requirements

HUMANITIES AND SOCIAL SCIENCE REQUIREMENTS

While the engineering undergraduate student is expected to complete certain requirements during his first two years of study which are directed toward the humanities and social sciences, and which are fulfilled by the completion of his basic studies requirements at the University (or general education requirements at other institutions), the University of South Florida expects more of its prospective engineering graduates than this minimum. The engineer must not only be a technically competent individual, he must also be a person who can understand, adjust and contribute to his social environment. The undergraduate engineering program at the University requires, in addition to the general education program, twelve credit hours of study in the humanities and social sciences during the engineering stu-
dent's junior and senior years. Students are encouraged to complete two courses in this subject material area each academic year of his upper level program.

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. This examination will be administered by the faculty of the University's English program and students evidencing a deficiency will be required to initiate the necessary corrective programs, with the assistance of their advisers. Correction of any deficiency must be effected prior to recommendation of the student for graduation by the faculty of the College.

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 the ability to apply mathematics will be required to take remedial course work in engineering analysis 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 Office of the Dean.

CONTINUATION REQUIREMENTS

All undergraduate students registered in the College of Engineering are expected to maintain the minimum of 2.0 average ("C" average) for all work attempted while registered in the College. Students who do not maintain this requirement will be declared ineligible for further registration for course work and degree programs in the College unless individually designed continuation programs have been prepared by the student's adviser and approved by the academic committee of the College.

REQUIREMENTS FOR GRADUATION

In addition to the completion of the course work and/or project requirements of the respective programs of the College, students must be recommended for their degrees by the faculty of the College. It is expected that students completing their master's program would have completed their advanced work with a minimum average of 3.0 or "B". The awarding of a baccalaureate degree requires a minimum average of 2.0 or "C" for all work attempted while registered in the College. Students attempting but not completing their professional master's requirements may elect to request the awarding of the bachelor degree.
Post Baccalaureate Program

The College of Engineering offers two post baccalaureate programs leading to a degree at the Master's level. One is the Master of Science in Engineering which is design or research oriented requiring an individual project or thesis. The other is the Master of Engineering which does not require a thesis or project. Each upper level department of the College may elect to award either degree depending upon prior arrangement by the student. Admission to either program is dependent upon a favorable evaluation by the department concerned. Applicants are expected to meet the requirements outlined below, but others may be considered under special circumstances.

1. Entrance Requirements

A. A baccalaureate degree in engineering from an approved engineering college is required for admission to either of the Master's degree programs. Degrees in Mathematics, Physics, and Chemistry may be accepted on an individual basis for entrance into the program, depending upon the applicant's background and experience. In such cases it is most probable that additional engineering course work will be required.

B. A minimum grade point average of 3.0 out of a possible 4.0 for all work attempted during the last two academic years of undergraduate work.

C. A minimum total score of 1000 on the verbal and quantitative portions of the graduate record examination is expected.

D. Students who do not meet regular entrance requirements may be permitted to attempt trial programs with the recommendation of the department and approval of the Dean of the College. These programs may contain up to 15 hours of specified advanced course work and will contain a performance criteria.

2. Program Requirements

A. A minimum of 45 quarter hours of approved graduate level course work will be required.

B. An overall grade point average of 3.0 will be required for all courses attempted in the program. In the event a student's grade point average falls below the required 3.0, the student will be placed on probation. All students in such a probationary status must obtain a directed program from his academic advisor approved by the Dean prior to continuing any further course work.

C. All students are required to pass a comprehensive examination which may be both written and oral prior to the awarding of the degree. This should be arranged by the student with this department.

D. Students working toward the Master of Science in Engineering degree must complete either a design or research project of which a maximum of 9 quarter hours may be used to fulfill his degree requirements. The course, 699 (variable 1-9 credit) Design or Research with appropriate departmental prefix, is to be used for this purpose.
When a student has completed 9 quarter hours of design or research but has not completed his requirements and where University facilities are being used, the student must register for a minimum of 3 credits of course 698 each quarter that he is using the facilities. In any event, he must register for a minimum of 3 credits of course 698 or 699 during the quarter in which he applies for his degree.

Thesis for research projects are to be prepared in accordance with the "Handbook for Graduate Thesis and Dissertation", The Graduate Council, University of South Florida. Copies are available in the Office of the Dean.

**Computer Science Programs**

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

**General**

FORTRAN IV Programming, ETK 301, 302, (2 each), and COBOL Programming, ETK 303 (3) are offered every quarter at times compatible to other course work offerings. New computer languages will be offered for credit as they approach operational status. Other computer oriented credit course work is also available for undergraduates.

**Senior and Graduate**

A group of course work is available at the more advanced level which provides the student 9 to 15 credits of computer sciences for seniors or graduate students. These offerings are open to all fields but do require prior knowledge of FORTRAN and COBOL Programming. See Course Series ETK 501 through ETK 506.
College of LIBERAL ARTS

The College of Liberal Arts, as one of the five colleges of the University, continues the general and liberal education begun in the College of Basic Studies. Here the student may explore further his vocational interests and develop a breadth of knowledge and precision of intellect necessary for responsible leadership in our society.

More specifically, the College seeks:
1. To help students continue the exploration of new subjects affording fresh ideas and talents enriching to life.
2. To enable students to try out several fields as a means of determining the wisest vocational choice.
3. To give sufficient development within the chosen vocational field that the student will be prepared to obtain a job upon graduation or move successfully into a graduate or professional school.
4. To collaborate with the other colleges of the University in providing liberal courses to reinforce required training in those professional schools.
5. To cultivate independent thinking, creative imagination and value commitment in order that students may become constructive leaders in their chosen activities.

Admission to the College

Provisional admission to the College of Liberal Arts is possible with four of the eight areas of Basic Studies completed or waived, and three of the four Physical Education courses completed, with a minimum of 81 quarter hours. Unqualified admission requires six of the eight areas of Basic Studies (including English), four Physical Education courses completed, and a total of 90 quarter hours or more. (A grade point ratio of 2.0 is expected in both instances.) Occasionally students may be admitted without the 2.0 average and they will automatically be on warning status.

Upon admission (by application to the appropriate divisional office in the instance of a departmental major, or the Dean's office when the major is interdivisional) the student will declare his major and will be counseled in his selection of courses by an adviser from the major field. He will then plan the remainder of his college program to fulfill his educational needs and satisfy requirements for the bachelor of arts degree. The Associate Dean of the division will generally supervise his progress and ultimately certify the student for the degree.
Any student of the University may take courses in the College of Liberal Arts even though not officially admitted. Freshmen and sophomores may wish to take liberal arts courses in addition to their basic studies program. Similarly students in other colleges or adults in the community will elect liberal arts courses of particular interest.

**Graduation Requirements**

The College of Liberal Arts currently offers one undergraduate degree: Bachelor of Arts. These requirements are referred to on page 26 of this catalog but are briefly summarized here:

1. 180 quarter credits with at least a “C” average (2.0) in work done at the University of South Florida. At least 60 of the 180 credits must be in courses numbered 300 or above.

2. General education requirements of at least seven courses fulfilled in the College of Basic Studies, including CBS 101-102, and CBS 401 (the Basic Studies Functional English course and Basic Studies Senior Seminar), or transferred equivalents. Proficiency must also be shown in four physical education areas.

3. Completion of a major in a subject or an integrated major involving several subjects. There must be at least a 2.0 average in this major for all USF work. To insure breadth of experience and to preclude undue specialization, a student must earn (or show competence in) a minimum of 120 credits outside his discipline of concentration, 90 of which must be outside the division of his major.

4. Work transferred from other schools will not be included in the grade point average computed for graduation. (However, graduation with honors requires a 3.5 average in USF work and also in the total hours applied toward graduation.)

5. A student must earn the last 45 credits in residence at the University of South Florida.

6. Completion of a senior achievement test. This is administered free by the Office of Evaluation Services to graduating seniors each quarter by application to that office.

**Organization and Special Features**

The College of Liberal Arts is organized into four divisions for the administration of staff, courses, and student records. They are: Fine Arts (FAH 110), Language-Literature (FAH 239), Natural Sciences and Mathematics (fourth floor, Science Center), and Social Sciences (first floor, Social Science Building). Each division is headed by an Associate Dean who is responsible for each student's admission to a major, application of regulations, maintenance of student records (including the signing of all official forms), and ultimate certification for the degree.

The College, like the total University, is concerned with the broad development of students' knowledge. Thus, it offers several integrated courses and limits work in any one field. At the same time, the student must learn to work independently. The College emphasizes individual projects in many
courses, laboratories, field studies, and the opportunity to earn credit through independent study and examination.

It is important that the student develop basic skills for research and creative scholarship; hence the provision of senior seminars and special courses on research methodology. These skills are important for the critical appraisal of scholarly work even though the student might not go on to graduate study. There is opportunity from time to time for students to collaborate with their professors on research projects and to render essential intellectual services to the community.

A special junior year experience program is offered to Liberal Arts majors through the Cooperative Education Program.

**CURRICULA AND PROGRAMS**

**Opportunities for Concentration**

The Liberal Arts College offers a major in twenty-three fields as described in the following pages. The student must fulfill all the requirements indicated or receive written permission from the Department Chairman for any substitution or exemption.

In addition to these departmental majors, there are interdisciplinary majors available in several divisions. These include the programs in American Studies, Pre-Law, International Studies, the Social Science Divisional program, the Natural Science Divisional program and the Bachelor of Independent Studies program.

A general Liberal Arts major is available for students whose plans require still wider training, cutting across divisional lines. Such students, (preseminary and others) should see the Dean of the College for assignment to an advisor and be prepared to write out for approval a statement of the purposes underlying their program and the combination of courses they deem most relevant.

An interdisciplinary degree is also possible through the College of Basic Studies and (for teachers) through the College of Education.

**Bachelor of Independent Studies**

The College offers a BIS Degree to adults over 25 years of age who are seeking a liberal education but who are unable to spend much time on campus. The program is offered in collaboration with the Office of Continuing Education and is described in detail under *Academic Programs*.

Through this program, it is possible to explore the most significant avenues of thought in the Natural Sciences, the Social Sciences, and the Humanities. Each student does extensive reading under the guidance of a faculty advisor and reports to the campus periodically for short seminars and examinations.

**Division of Fine Arts**

The Division of Fine Arts serves the three-fold purpose of providing courses of study, theatres of practice, and programs of events for the University family, the surrounding community and the citizens of the state of Florida.
Its prime objectives are: (1) to provide a broad but thorough training for those highly talented in the fine arts, (2) to offer guidance and training for those preparing for teaching, and (3) to provide curricular studies and extracurricular activities for general University students.

The division offers courses in art, dance, music and theatre. Special programs designed for the preparation of public school teachers include (1) art, grades 1-12; (2) general vocal music, grades 1-12; and (3) general-instrumental music, grades 1-12.

DANCE

All dance majors will take DAN 303, 403, 503 (six credits), 313, 413, 513; three credits each in music arts, theatre arts, and visual arts; FNA 543, 553; TAR 221. Depending upon choice of concentration additional requirements are: Modern dance sequence: DAN 201, 301 (six credits), 302, 402 (six credits), 501 (eighteen credits); ballet majors: DAN 202, 302 (six credits), 301, 401 (six credits), 502 (eighteen credits)—for a total of 75 hours. A minimum of 90 hours (including Basic Studies courses) must be taken outside the Division of Fine Arts.

MUSIC ARTS

The music arts curriculum is designed for those gifted in performance on an approved instrument or in voice as preparation for graduate study to qualify as performing artist, college- or studio-teacher.

Requirements for the B.A. Degree:

Requirements for a major in piano are listed here: those seeking majors in another instrument or in voice should substitute the appropriately numbered applied music courses.

Piano students: MUS 212, 213, 214, 312, 313, 314, 325 (applied music, 12 credits), 412, 413, 414, 512, 513, 514, 525 (applied music, 12 credits); 571 (required only of those whose objective is studio-teaching); three credits each in dance, theatre arts and visual arts courses and FNA 543, 553 for a
total of 75 credits. A minimum of 90 credits (including Basic Studies courses) must be taken outside the Division of Fine Arts.

Placement examinations are required of all new registrants in musical styles (theory and history), and for admission to 300-level courses in applied music. Students must obtain the dates for these examinations from the Music Office (FAH 204); completion of the examinations is required before registration in music courses can be permitted.

All students seeking a major in music are required before admission to the College of Liberal Arts (1) to complete successfully the piano proficiency requirement defined by the music faculty and (2) to perform satisfactorily on his major instrument or voice for the music faculty. Students registered for applied music courses must (1) perform in a major ensemble each quarter, (2) attend required recitals as scheduled, and (3) present a faculty-approved public recital before graduation.

Requirements for the M. M. Degree:

General requirements for graduate work are given on pages 130-135. In addition, the applicant will need to satisfy the following requirements in music before initial registration: (1) Applied music audition and (2) placement examinations in musical styles (theory and history) and piano.

The specific program for each student will vary according to his needs and interests. Each program must be approved by the student's advisor in conformance with the guidelines established by the Graduate and Honors Committee made up of music arts and music education faculty members.

A minimum of 54 credits is required, one-half or more of which must be completed on campus. The student must be registered as a full-time graduate student for a minimum of one quarter. The typical program for the applied music major consists of 27 credits in 600-level applied music (4-credit courses) and related performance courses, 18 credits in musical styles (theory and history), and a total of 9 credits in research documents, thesis and/or a faculty-approved recital.

Programs for Teacher Education:

For the bachelor of arts degree for public school music teachers, see Education. For the master of arts degree for public school music teachers, see page 87.

THEATRE ARTS

All students will take TAR 203, 211, 221, 252, 339, 443, 471, 501, 502, plus any two of the Theatre Literature courses, and 3 credits each in Dance, Music Arts and Visual Arts courses, FNA 543, 553. Depending upon choice of concentration, additional requirements are—performance majors: TAR 212, 311, 313, 411, 413, 511, 515, plus 6 hours elected in the discipline; technical majors: TAR 321, 322, 421, 422, 423, 424, 425, 426, 529; playwriting majors: TAR 212, 444, 515, 543, 544, plus one additional Theatre Literature course and one beginning design course, with 6 hours elected in the discipline—for a total of 75 hours. A minimum of 90 hours (including Basic Studies courses) must be taken outside the Division of Fine Arts.
VISUAL ARTS

Requirements for the B.A. Degree:

The Visual Arts curriculum is designed for students interested in continuing their education in graduate or technical schools with the objective of college teaching, gallery or museum work, fine or commercial studio work.

The Visual Arts student may elect to emphasize painting, sculpture, graphics, ceramics, cinematography or art history by selecting the appropriate sequence of courses.

A typical sequence would be: ART 201, 202, 301, 302, 401, 402, 411, 421, 431, 441, 461; FNA 543, 553 and 3 credits each from the following departments: Dance, Music and Theatre; 12 credits in art history; 15 credits of the area to be emphasized (painting, sculpture, graphics, ceramics, cinematography or art history) for a total of 75 hours. A minimum of 90 hours (including Basic Studies courses) must be taken outside the Division of Fine Arts.

All Art majors are required to present a portfolio of their work prior to entrance into upper level. The University reserves the right to retain selected student work done while registered at the University.

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

Requirements for the M. F. A. Degree:

General requirements for graduate work are given on pages 130-135. It is additionally required that applicants submit examples of their work to the Department of Visual Arts before admission to the program.

A minimum of 72 credits is required. The typical program consists of 18 hours in one of the studio areas of painting, sculpture, graphics, ceramics or cinematography, 15 in one or more of the remaining areas, 12 in the history of art and 9 each in research, thesis and a minor.

As part of the thesis requirement, the student must prepare and stage an exhibition of his thesis work in the last quarter prior to graduation.

The student must be registered as a full time graduate student for two quarters.

The requirements for the M. A. Degree in Art Education are listed under the College of Education.

Division of Language and Literature

The Division of Languages and Literature offers courses in American Studies (AMS), Classics and Ancient Studies (CLS), English (ENG), Foreign Languages (FRE, GER, ITA, RUS, and SPA), Journalism (JNM), Linguistics (LIN), Philosophy (PHI), Religious Studies (REL), Romance Languages (ROM), Speech (SPE) and Interdisciplinary Language-Literature subjects (LLI).

Majors are available in American Studies, Classics and Ancient Studies, English, French, German, Italian, Russian, Spanish, Philosophy, Religious Studies and Speech.

Four Master of Arts programs are also available: English, French, Spanish and Speech.
AMERICAN STUDIES

The American Studies major is designed for those students interested in studying the relationships among the important elements which shape American civilization. The American idea sequence, CBS 301, 302, and 303, is a prerequisite (or can be taken concurrently) for admission to the major.

To complete requirements for a major, a student must take (1) the following courses in American Studies: AMS 301, AMS 311-312-313, and AMS 491-492-493, (2) three courses from the following: HTY 411, ENG 305, HUM 535 or PHI 413 and HTY 421; and (3) twenty one hours of related elective courses, no more than nine hours in any one area, chosen in consultation with and approved by his major adviser from among the following list of courses: HTY 301, HTY 315, HTY 409, HTY 461, ENG 306, ENG 307, ENG 426, ENG 517, ENG 525, ENG 527, ENG 528, HUM 536, HUM 537, SPE 345, SPE 565, ANT 303, EDF 575, PHI 413, POL 201, POL 431, POL 341, POL 345, POL 432, POL 441, POL 463, SOC 261, SOC 341, SOC 371 and SSI 503.

Each student's program must be planned with the American Studies adviser, who may make appropriate substitutions when new related courses are added to present University offerings and he deems such substitutions educationally advisable.

CLASSICS AND ANCIENT STUDIES

The Department offers a major in Classics and Ancient Studies. Requirements for the B.A. degree in Classics and Ancient Studies are: 48 quarter credits consisting of a core sequence of 22 credits plus one of three alternatives of 26 credits providing a choice of emphasis. The core sequence consists of CLS 301, 302, 303, 411, 412, 413, and 529. The alternative sequences are: (a)—emphasis on Latin: CLS 321, 371, 401, 402, 403, 517, and 571; (b)—emphasis on Latin and Greek: CLS 321, 331, 332, 333, 371, 527, 571; (c)—broad scope with Latin, Greek, and Hebrew: CLS 331, 332, 333, 341, 342, 343, 527, and 583 (Biblical Civilization).

Individual adaptations within the 26 variable credits to meet special student needs are possible with the consent of the Department Chairman. Electives (where applicable) are: CLS 401-402-403; 331-332-333; 321, 371, 517, 527, 571; ART 313, 323; HUM 423-424; PHI 333, 415; REL 350.

For a combination major of Latin with a modern foreign language see page 111 under combined majors, FOREIGN LANGUAGES.

ENGLISH

Requirements for the B.A. Degree:

A major in English requires a sequence of courses in British and American literature. Advanced courses focus on the works of particular authors, genres, or groups of related authors. All English courses attempt to teach students how to think critically about literature and to fit the works studied into the economic, social, political, scientific, and religious contexts.

To accumulate the required 48 credits, all English majors must take the
following seven courses: ENG 201, ENG 202, ENG 203, ENG 305, ENG 306, ENG 307, and ENG 411. In addition they must elect one of the following: ENG 319, ENG 321, ENG 335, ENG 336, ENG 337, ENG 437, ENG 459, and ENG 511; two of the following: ENG 429, ENG 501, ENG 502, ENG 503, ENG 505, ENG 507, ENG 515, ENG 519, ENG 520, ENG 521, and ENG 559 (a student cannot use both ENG 519 and ENG 520 in this group); and two of the following: ENG 425, ENG 426, ENG 430, ENG 513, ENG 517, ENG 518, ENG 523, ENG 527, ENG 528, ENG 531, and ENG 535.

Persons wishing to take English courses not on this list, or more than the specified number of courses in the above areas, may include them in the 12 hours allowed under the 60-hour maximum permitted in one department.

Requirements for the M.A. Degree:

Requirements for Admission. In addition to the general requirements of the University, an applicant must have an academic average of B in all English courses above freshman English, a minimum of twenty-eight hours of literature in English above the freshman level, and a score of 500 on the Verbal Aptitude or the Advanced English Test of the Graduate Record Examination. All applications must be approved by the Graduate Committee of the Department of English.

Course Work. A master of arts degree in English requires 48 hours of course work from the following list of English courses: ENG 623; ENG 691; ENG 515 and ENG 531 (if these courses already have been taken, English 500-level courses may be substituted); one to three other 500-level courses; two courses from ENG 683, Selected Topics; three to five courses from ENG 615, ENG 655, ENG 657, ENG 659, ENG 667, ENG 687, and ENG 695. Students may substitute eight hours of courses acceptable for graduate credit in related areas, subject to approval by the Graduate Committee of the Department of English.

Foreign Language Requirement. All candidates for a master's degree will be required to demonstrate reading proficiency in one of the following foreign languages: Latin, Greek, French, German, Spanish, Italian, or Russian.

Other Requirements. Each student is required to write an extended critical or analytical paper in the field of English studies. In addition, he must also pass a comprehensive examination, both oral and written. Specific information about these requirements is available from the Graduate Committee of the Department of English.

Requirements for the M.A. Degree in Junior-College Teaching:

Requirements for Admission. See M.A. program above.

Course Work. A joint program, with the College of Education, designed to provide competence in those areas of English studies most often needed by the junior-college teacher: composition, language, literature in English, and world literature in translation. Courses in English: ENG 623; ENG 515; ENG 585, Modern Grammar (structural and transformational); one course in English literature 1500-1600; one course in English literature 1660-1798; one course in English literature 1798-1920; one course in American literature; one course in English-American literature after 1920; ENG 583, Advanced
Composition for Teachers; ENG 683, World Backgrounds of Literature in English. Courses in the College of Education: EDH 651, EDH 653, and EDC 691 (internship if required).

Foreign Language Requirement. None.

Other Requirements. Each student must pass a comprehensive examination, oral and written. Specific information about these requirements is available from the Graduate Committee of the Department of English.

FOREIGN LANGUAGES

Language studies in the College of Liberal Arts fall into two general groupings: (1) Modern foreign languages and literature, providing instruction in French, German, Italian, Russian, and Spanish; and (2) classical languages and literature, providing instruction in Latin, Greek and Hebrew. Instruction in linguistics, language structure and development, is also available.

These programs are designed to meet the needs of students who desire competency in a language and an expanded understanding of foreign culture and literature. They are of particular interest to students who wish to teach languages, those who plan to further their studies in graduate school, and those who seek careers in various types of foreign employment.

Major programs are offered in French, German, Italian, Latin, Russian, and Spanish, and in combinations of any two of these.

Requirements for the B.A. Degree:

Modern language majors must complete at least 45 credits in the chosen language beyond the functional language courses. Among these 45 credits must be the following:


A native speaker must substitute a literature course for the advanced conversation course (303). Moreover, in cases where a native speaker has received advanced education abroad, he will not be allowed to take the advanced composition course (301) to fulfill his major requirements.

Combined Majors

Combined majors are offered in any two modern languages or in Latin and a modern language. For a major in two modern languages, a student must take the courses numbered 301, 303, 305, 306, and 307 in each of two languages and an additional 19 credits in his first language and an additional 10 credits in his second language. Students majoring in Latin and a modern language must take CLS 301, 302, 303, 371, 401-402-403, 411-412-413, 517 and 571; and courses numbered 301, 303, 305, 306, and 307 in the modern language, plus 10 additional hours of literature in the modern language.

A student majoring in any one of the Romance languages may count ROM 517 toward his major requirements.
Requirements for the M.A. Degree:

General requirements for graduate work are given on pages 130-135.

All students admitted to the M.A. program in foreign languages must have a B.A. degree in their major or they must have completed 18 hours of courses on the 500 level in the language of their major with an average of B (3.00), allowing only one C. The 300 level survey courses are a prerequisite for any 500 level course. However, they can be taken simultaneously with 500 level courses. Six of the student's 18 hours may be counted toward the M.A. degree unless they were taken to fulfill the requirements of the B.A. degree or its equivalent. A satisfactory grade on the Graduate Record Examination is required for admission to the M.A. program.

For a master's degree in French or Spanish the following are required:

1) A minimum of 45 credit hours.
2) A thesis to be written under the direction of an adviser assigned by the chairman of the department.
3) A comprehensive two-hour examination, based on the student's course work and the reading list, to be taken after the first six weeks of the term following the one in which the student completed his course work.
4) The M.A. candidate must have a reading knowledge of a foreign language other than the one he is studying for his degree. All languages taught by the department of foreign languages or Latin are acceptable. However, Portuguese is excluded for Spanish majors. The student must pass the Graduate School Foreign Language Test, prepared by the Educational Testing Service, within a norm set by the faculty. He cannot take the comprehensive final examination before this requirement is satisfied.

Of the 45 hours required of the student no more than 18 may be on the 500 level and the remaining 27 must be on the 600 level. A student may transfer a maximum of nine hours credit of graduate work from another institution toward his M.A. degree from the University of South Florida.

INTERDISCIPLINARY LANGUAGE-LITERATURE

While some departments give credit toward a major for some interdisciplinary language literature courses, all LLI courses are designed as electives for students wishing to extend their understanding of a particular field in the Division and of its relationships to other fields. The courses are generally of two types:

I. those in the history of ideas
   LLI 301, 302 Main Currents of Western Thought I & II
   LLI 305, 306 The Idea of Progress I & II
   LLI 313 The Idea of Freedom and

II. those relating a field outside the Division to work in it
   LLI 311 Literature and the Film
   LLI 312 Philosophy and the Film
   LLI 313 Introduction to Film Writing
   LLI 540 The Social Structure of Language
   LLI 541 Psycho-linguistics

The courses in group one combine literature, philosophy and criticism
to provide broad perspectives. Those in group two are more specialized, but still combine ideas in at least two specific fields.

**JOURNALISM PROGRAM**

Students interested in Journalism must major in another field. They may, however, choose journalism electives from among four basic courses, supplemented by practical laboratory work on campus publications.

Those seeking careers in the mass media after graduation will be directed to the various daily and weekly newspapers, radio and television news departments, advertising agencies, magazines, and public relations firms with which the Journalism Program maintains close contact. Such students may elect to become journalism advisees and should schedule their courses preferably in this order: CBS 101 (Functional English-Journalism section) CBS 102 (Functional English: Mass Media), JNM 341-342, 343, 347, and 349, along with related electives, after consultation with the Journalism Program chairman.

Students in the Secondary Education program with a major in English-journalism are referred to the College of Education section in this Catalog under the English-journalism heading.

**LINGUISTICS PROGRAM**

There are a number of linguistics courses offered both under the Linguistics Program and under a number of other departments, but there is no linguistics major at present. In addition to those courses offered under the Linguistics Program, LIN 411, LIN 412, LIN 483, LIN 520, LIN 530, LIN 581, LIN 583 and LIN 585, the departments of Anthropology, Classics and Ancient Studies, English, Foreign Languages and Speech offer a number of linguistics courses. Students interested in linguistics electives should also refer to the course offerings of these departments.

**PHILOSOPHY**

The philosophy program includes five areas of study: logic and scientific method, history of philosophy, theory of knowledge, theory of reality, and theory of values. Majors in philosophy must complete at least 45 credit hours in the program, including PHI 303, 333, 334, 335 and at least nine credits above the 570 level.

Credit toward a major in philosophy will be extended for LLI 315.

**RELIGIOUS STUDIES**

The major in religious studies is offered to those students who are interested in the vital role of religious thought in shaping the cultural patterns of historical peoples and in its relationship to the merging patterns of contemporary life. Such a major might be elected out of personal interest in religious thought, as the undergraduate preliminary for a master's and doctoral program of religious studies, or as a valuable background for semiprofessional or professional work in religious institutions: public schools, junior colleges, universities, the religious education departments of local churches, etc. (The student who is planning to enter a divinity school or
theological seminary should write to the institution of his choice to get specific undergraduate requirements for entrance.

The program is as simple and practical as possible, giving the student a substantial background for further study in the field, while at the same time allowing considerable freedom for outside electives. There are three major divisions to the program, each of which answers one of the following questions: (1) What is religious thought? (2) How can we analyze it? (3) What are its applications?

A total of 49 quarter hours are required for the major, divided as follows:

I. The Basic Documents Underlying Religious Thought (17 quarter hours required): REL 310, REL 315, REL 325 or 327, and REL 350.

II. Analysis of Religious Thought (17 quarter hours required): PHI 411 and two of the following three courses: SOC 373, ANT 471, or psychology of religion.

III. Applications of Religious Thought (20 quarter hours required, no more than 9 in any one department): ENG 319, ENG 507, ENG 511, ENG 583 (Myth and Literature), CLS 321, CLS 341, 342, 343, LLI 301, LLI 302, PHI 321, PHI 333, PHI 521, ART 472, HUM 427, HUM 428, HTY 426, HTY 432, HTY 591.

Each student’s program must be planned with the Religious Studies adviser, who may make appropriate substitutions when he deems these educationally advisable.

SPEECH

The Speech curriculum provides courses for all students interested in increasing their understanding and skills of oral communication, and offers major programs in general speech, rhetoric and public address, and broadcasting. In addition, two combination major programs are available: an English-Speech program, designed primarily, though not exclusively, for those preparing to teach in the secondary schools; and a Speech-Theatre Arts program offered jointly by the Language-Literature and Fine Arts Divisions.

A major in Speech requires a minimum of 45 credits; the combination English-Speech program requires 67 credits in English and Speech, and five credits in Theatre Arts; and the joint Speech-Theatre Arts program requires 61 credits.

Speech 201, 203, 491, and 492 are required of all majors.

General Speech sequence: SPE 201, 203, 321, 363, 491, 492, and 20 credits of Speech electives.

Rhetoric and Public Address sequence: SPE 201, 203, 363, 491, 492, 503, and 20 credits of Speech electives, 15 of which must be in rhetoric and public address and discussion.

Broadcasting sequence: SPE 201, 203, 241, 321, 491, 492, and 20 credits of Speech electives, 15 of which must be in broadcasting.

English-Speech sequence: SPE 201, 203, 321, either 361 or 365, 491, 492, and ten credits of Speech electives; ENG 201, 202, and 203; either 305 or 306; 307, 321, 411, and 517; and TAR 303.

Speech-Theatre Arts sequence: SPE 201, 203, 321, 491, 492, 521, and one 300, 400 or 500 elective in Speech; TAR 211, 221, 303, 311, 313, 411, and any two courses chosen from 431, 432, 433, 435, 436, and 437.
Requirements for the M.A. Degree:

Requirements for Admission. In addition to the general requirements of the University, an applicant must have an academic average of B in all Speech courses, a minimum of 18 quarter hours in Speech, and a score of 500 or higher on the verbal aptitude section of the Graduate Record Examination. All applications must be approved by the Department of Speech.

Course Work. A Master of arts degree in Speech requires 45 quarter hours of course work distributed in the following manner: 15 hours in Rhetoric and Public Address (to be selected from SPE 661, 662, 665, 667), 10 hours in Oral Interpretation of Literature (to be selected from SPE 521, 522, 523, 621), 5 hours of Speech Science (to be selected from SPE 501, 503, 511, 611), 5 hours in Speech Seminar (SPE 691) and 10 hours in graduate Speech electives.

For graduate Speech electives, students may substitute two courses acceptable for graduate credit in related areas, subject to approval by the Department of Speech.

Examinations. Each student is required to pass a comprehensive examination, both oral and written.

Other Requirements. Each student will select one of the plans listed below:

Plan A—An extended critical or analytical paper (thesis) in the field of Speech studies.
Plan B—Proof of a working knowledge of a computer language (Cobol or Fortran) and ability to design a research program.
Plan C—Two courses (8 credits) in linguistics and one course (4 credits) in the structure of American English.
Plan D—Three courses (or 12 credits) in statistics.
Plan E—Three courses (or 12 credits) in Speech and/or other academic disciplines if part of an approved planned sequence.
Plan F—At least 12 credits in a foreign language above Basic College level.

Division of Natural Sciences

The Division of Natural Sciences offers courses in astronomy (AST), bacteriology (BOT), botany (BOT), chemistry (CHM), geology (GLY), mathematics (MTH), physics (PHY), zoology (ZOO), interdisciplinary courses in botany and zoology (BIO) and oceanography (OGY).

The courses are designed for students planning scientific careers or those technical careers having a considerable component of science, such as engineering or medicine. These students will typically major in one of the sciences or in a combination of sciences as preparation for employment, transfer to professional schools or admission to graduate school. Those seeking to transfer to another university to complete a course in agriculture, home economics, pharmacy, or one of the medical professions may begin their science work here before transferring.

Students seeking a general understanding of science but not technical competence will normally wish to take the basic studies courses in biological
science, physical science, and functional mathematics, and augment their understanding by adding upper level courses in the Division designed for non-scientists.

THE B.A. DEGREE PROGRAMS

The division offers the bachelor of arts degree in the following departments: Astronomy, Botany and Bacteriology, Chemistry, Geology, Mathematics, Physics, and Zoology.

Candidates for the bachelor's degree must be admitted to the upper level as early as possible upon completion of their basic studies requirements and before the end of their junior year.

Even before admission to the division, students preparing for a science or mathematics career must plan their courses from their freshman year because of the sequential nature of the science curriculum.

If students enter the University well prepared from high school, they may qualify for waiver in the basic sciences and/or mathematics courses as described in the section on the College of Basic Studies. To qualify for the basic studies Natural Science or Mathematics waiver, students must have a grade of 425 or higher on the Twelfth Grade Placement Test and three years in high school science or mathematics respectively with a grade of "C" or higher.

Students who do not qualify for a waiver but have good preparation in science and/or mathematics on the basis of the proficiency test and other evidence, are advised to begin their liberal arts science and mathematics courses early and postpone basic studies science and mathematics to be waived later either by examination or as provided below.

A student passing liberal arts mathematics courses through MTH 304 with a grade of "C" or higher in each course can receive an automatic waiver of CBS 109-110.

A student passing two eight-hour liberal arts sequences in separate physical science disciplines with a grade of "C" or higher in each course can receive an automatic waiver of CBS 208-209-210.

A student passing BIO 201-203 with a grade of "C" or higher in each course can receive an automatic waiver of CBS 205-207.

A student admitted to the upper level will be assigned an adviser in his field who will guide the student in planning his program and meeting the requirements for the degree.

MASTER'S DEGREE PROGRAMS

The Natural Sciences Division operate graduate programs leading to the Master of Arts Degree in the fields of Astronomy, Bacteriology, Botany, Geology, Mathematics, Physics and Zoology and a Master of Science in Chemistry.

Students apply for graduate work through the Natural Sciences and Mathematics Division and are recommended for admission by the department in which they intend to concentrate. A departmental committee is appointed which supervises and guides the program of the candidate. The general admission requirements for graduate work are given on page 131. The specific requirements for each department are listed under that department below.
Further information regarding admission and available fellowships and assistantships may be obtained by writing to the proper departmental chairman.

**DOCTOR'S DEGREE PROGRAM**

There is a program leading to the Doctor of Philosophy degree in the field of Biology. The initial emphasis is in the area of Marine Biology. The doctorate is offered as a cooperative effort by the Departments of Zoology and Botany. Biologists on the faculty of the Marine Science Institute also participate in the program. University regulations governing graduate study at the doctoral level are given on page 133. Specific requirements for the Ph.D. in Biology are given on page 119.

**MAJOR REQUIREMENTS**

**ASTRONOMY**

Requirements for the B.A. Degree:

A major in astronomy will normally consist of a minimum of 37 credits in the discipline, including AST 201, 202, 413 and 443; a selection of three courses from AST 521, 522, 533, 536, and at least three credit hours of AST 361 or at least three credits in AST 481. In addition, the student will take PHY 221 through 226; or PHY 211 through 216, PHY 315 and a total of at least nine credit hours in Physics above the 200 level in consultation with the adviser. The total number of physics credits must in any case be at least 21.

The student will also take MTH 203, 303, 304, 305 and at least nine credits in mathematics at least on the 400 level, preferably MTH 405, 406 and 407.

The student is expected to familiarize himself with the technique of programming electronic computers before the end of the sixth quarter.

Additional courses will be selected in consultation with the adviser. Selection of at least one foreign language (German, French or Russian) is strongly recommended, especially for those students who intend to enter graduate school.

Requirements for the M.A. Degree:

General requirements for graduate work are given on pages 130-135. A minimum of 45 credits must include at least 23 for courses numbered 600 or higher and at least 18 for structured astronomy courses numbered 500 or higher. It will be assumed that the student knows enough mathematics and physics to follow any astronomy courses required in his curriculum. No credit is available for courses numbered 499 or lower which the student takes in order to make up for initial deficiencies in this respect. Since candidates for the graduate degrees in astronomy may have a variety of backgrounds, including majors in astronomy, mathematics, physics, the required course of studies may vary considerably among students.

A thesis is required, which must be based on original work. The student must also demonstrate, before the degree is granted, his ability to translate into English the pertinent scientific literature in at least one of the foreign languages, German, French or Russian.
The Department of Botany and Bacteriology and the Department of Zoology offer programs leading to the bachelor of arts and master of arts degrees.

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

**Major in Botany:** A botany major must include the following courses: BIO 201-203, BIO 331-332, BOT 311, BOT 419, BOT 421, BOT 446 or 447, BOT 491. In addition at least 3 elective, structured courses in BOT or BIO are required. Also required are CHM 211-213 and CHM 331-336. Electives in physics, mathematics, geology and a foreign language (preferably German, French, or Russian) are strongly recommended. In addition to serving as a terminal degree, the B.A. in botany provides good preparation for training in conservation, forestry and agriculture, as well as graduate work in the plant sciences.

Students are advised to enroll in BIO 201 and CHM 211 during their freshman year and to seek completion of basic studies science requirements by obtaining an automatic waiver of CBS 205-207 by taking BIO 201-203. Prospective majors must seek early curriculum counseling from the department chairman.

**Major in Bacteriology:** A bacteriology major must include the following courses: BIO 201-203, BIO 331-332, BIO 351, BIO 421-422, BOT 417 or 418, and BOT 551 or 557. Also required are CHM 211-213, CHM 331-336 and MTH 101. In selecting courses in conference with the advisee, the adviser will consider the student's individual interests and professional goals. Students wishing to major in bacteriology are strongly advised to enroll in BIO 201, CHM 211, and MTH 101 during their freshman year and to seek the advice of the department chairman as soon as the student has made a decision to major in bacteriology. Prospective majors should obtain an automatic waiver in CBS 105-107 by taking BIO 201-203.

**Major in Zoology:** A zoology major must include the following courses: BIO 201-203, ZOO 311 or 312, BIO 331-332 or BIO 421-422. In addition, five elective, structured courses in biology (BIO, BOT, or ZOO prefixes) are required. Also required are CHM 211-213, and CHM 331-334. Electives in physics, mathematics, and a foreign language (preferably German, French, or Russian) are strongly recommended. It is imperative that freshman complete the BIO 201-203 and the CHM 211-213 series during their first three quarters. In addition to serving as a terminal degree, the B.A. in Zoology provides a good preparation for advanced training in Medicine and Dentistry, as well as graduate work in Zoology.

General requirements for graduate work at the Master's Degree level are given on pages 132-133.

**Requirements for the M.A. Degree:**

**Major in Botany or in Bacteriology:** Students are admitted for graduate work in Botany or in Bacteriology if they present the requisite background in the biological sciences. The bachelor of arts or bachelor of science degree with a major in botany, zoology, or biology is recommended in addition to a satisfactory grade on the Graduate Record Examination.
For a Masters degree in Botany or in Bacteriology, a minimum number of 45 credits is required of which: (1) a minimum of 24 credits in courses numbered 600 or above, (BOT, BIO or ZOO prefix) no more than 9 of which may be given for research (BOT 681) graduate seminar (BOT 691) or thesis (BOT 699); and (2) the remaining credits must be taken in courses numbered 400, 500 or above to meet the requirement of a minimum of 45 credits. Other requirements are: (3) completion of a Master's thesis approved by the student's committee or an equivalent amount of course work approved by the student's major advisor, and (4) satisfactory performance on a final oral examination administered by the student's committee within the department.

Major in Zoology: A minimum of 45 credits must include 22 in biology courses (BIO, BOT, or ZOO prefixes) numbered 600 or above, not more than nine of which may be for the thesis. Other requirements are completion of a Master's thesis approved by the student's committee and satisfactory performance on a final oral examination given by the Department. Reading knowledge of one foreign language may be required by the student's committee.

Requirements for the Ph.D. Degree:

Major in Biology: The Ph.D. in biology will be a cooperative effort involving both the Zoology and Botany Departments. Each doctoral committee will include at least one faculty member from each department. Students may be admitted to the graduate program by either department. The department concerned would also be responsible for advising the student to (a) work toward the M.A. first or (b) work directly toward the Ph.D.

Students advised to work toward the Ph.D. will have a supervisory committee appointed as soon as possible. The committee shall approve the course of study to be followed by the student, supervise his research, conduct his qualifying and final oral examinations, and approve his doctoral dissertation. The student's major professor will serve as chairman of his committee until the final oral examination.

The Admission to Candidacy will be issued by the Dean of the College upon receipt of a statement from the supervisory committee indicating that the student has successfully completed his language and qualifying examinations. In order to gain the experience that comes from teaching, satisfactory service as a teaching assistant for one academic year is required (unless a specific exemption is recommended by the supervisory committee). The student is expected to complete all course work stipulated by his committee with at least a B (3.00) overall average.

In general, the final oral examination will be a defense of the dissertation; however, other areas of the student's work may also be included. After all the above requirements are completed, the chairman of both departments will certify to the Dean of the College that the candidate is eligible for the degree.

MARINE BIOLOGY

The field of marine biology is especially important in Florida and there is a good demand for trained personnel. Faculty members in both the Zoology and Botany Departments teach courses and conduct research in this area.
Summer courses are given at the St. Petersburg Campus and include ZOO 546-547—Marine Invertebrate Zoology, BOT 543—Phycology, ZOO 519—Ichthyology, ZOO 523—Physiology of Marine Animals, ZOO 533—Physiology of Fishes, and ZOO 615—Plankton Systematics. Interested students should elect to major in either Zoology or Botany and, in addition to taking the major requirements, need to complete OGY 311—Introduction to Oceanography, ZOO 546-547, and BOT 447—Marine Botany. This curriculum will provide a good foundation for graduate work in marine biology or oceanography.

Programs for Teacher Education:

For bachelor of arts degree secondary school teachers in biology, see page 80. For teachers in Junior College the M.A. degrees in Botany and Zoology are recommended. For an alternative degree, see page 92.

CHEMISTRY

Requirements for the B.A. Degree:

A chemistry major must include the following chemistry courses: CHM 211, 212, 213, 321, 322, 331, 332, 333, 334, 335, 336, 441, 442, 443, 444 and 491. Other required courses include MTH 203, 303, 304, 305, and either PHY 221-222, 223-224, 225-226, or PHY 211-212, 213-214, 215-216, and 315. Two years of college level German, Russian, or French is strongly recommended. The above courses constitute a minimum curriculum for a major in chemistry. It is recommended that this program be strengthened with additional courses to be selected by the student in consultation with his chemistry faculty adviser. To qualify for admission to graduate schools, a student should take additional courses which will emphasize his major interest. Two programs for this purpose are as follows:

Emphasis in Organic Chemistry: CHM 431, 433, 511
Emphasis in Physical Chemistry: CHM 511, 521, MTH 401 or 405, and advanced physics elective.

Requirements for the M.S. Degree:

General requirements for graduate work are given on pages 130-135. The curriculum for a chemistry major will vary with the area of his thesis. The thesis will carry not less than four nor more than nine credits. A minimum of 45 credits including the thesis is required and one-half of these credits must be in chemistry courses numbered 600. No more than 15 credits in research and thesis may be counted toward the 45 credits required for the degree. The specific course requirements will be determined by his advisory committee on the basis of his diagnostic examination results and his proposed research.

In addition to the course requirement, each student will present an oral defense of his thesis for approval of his advisory committee.

Programs for Teacher Education:

For bachelor of arts degree secondary school teachers in chemistry, see page 80. For master of arts degree for secondary school teachers in chemistry, see page 85.
For teachers in Junior College the M.S. degree in Chemistry is recommended. For an alternative degree, see pages 92-93.

DIVISIONAL MAJOR

The bachelor of arts divisional major is designed to serve students desiring a broad background, such as science teachers, pre-medical students, and other pre-professional students. Major requirements in the Division of Natural Sciences are a minimum of 36 credits in the discipline of major concentration and a minimum of 24 credits in the division outside that discipline. These 24 credits must be approved by the student’s advisor and must include a minimum of three at the 300 level or above. Prospective teachers should also consult the College of Education section of this catalog for information about certification requirements in the science field. Premedical and pre-dental students should contact the chairman of the PreMedical Advisory Committee.

The divisional major is not necessarily an adequate preparation for entrance into a graduate program in the natural sciences. To strengthen the preparation, additional science and mathematics electives beyond the minimum requirements may be recommended by the faculty adviser. By the proper addition of science and mathematics electives beyond the minimum requirements, the divisional major can serve as a strong preparation adapted for graduate work in a wide range of interdisciplinary fields such as biochemistry, microbiology, biophysics, bacteriology, space sciences, oceanography, geochemistry, and geophysics.

GEOLOGY

Requirements for the B.A. Degree:

A major in geology will normally include GLY 201, 301, 302, 303, 311, 312, 313, 361, 503, 504, and seven elective credits in Geology. In addition, the program must include CHM 211, 212, 213; PHY 211, 212, 213, 214, 215, 216, and MTH 101. The student will choose, in consultation with his geology adviser, such additional courses in the Division of Natural Sciences and Mathematics that support his major interest within the field of Geology. Selection of a foreign language, preferably French, German, or Russian, is strongly recommended, especially for those students who intend to enter graduate school.

An entering student anticipating a major in geology is advised to enroll in GLY 201, 301, and CHM 211, 212, 213 in the freshman year and to seek curriculum counseling with a Geology adviser early in his college career.

Requirements for the M.A. Degree:

General requirements for graduate work are given on pages 130-135.

Students are admitted for graduate work in Geology if they present the requisite background in geology and supporting sciences. The bachelor of arts or bachelor of science degree with major in geology, or major in other natural science with strong supporting program in the geosciences is recommended in addition to a satisfactory grade on the Graduate Record Examination.
The curriculum for a geology major will vary with the area of his thesis but will include the following: a minimum of 23 credits in courses numbered 600 or above, no more than nine of which may be given for the thesis; either a written thesis in a field or specialization approved by the advisory committee (2-9 credits) and an examination based on the results of an original study, or an equal number of credits of graduate level courses in geology; and additional credits in geology from the upper level may be scheduled to make a minimum of 45 credits beyond the bachelor's degree and exclusive of prerequisites.

Teacher Education:

For bachelor of arts degree secondary school teachers desiring to teach science at the secondary level should include basic courses in Geology and Earth Science as part of their curriculum. Some courses also give graduate credit.

For teachers in Junior College the M.A. degree in Geology is recommended. For an alternative degree, see pages 92-93.

Marine Geology

One of the major divisions of marine study, marine geology, is a part of the program of the Geology Department. Courses and research in marine geoscience are conducted in the department, or in nearby marine environments. A geology major may, as a part of his program and with the guidance of his adviser, select electives from among GLY 411 Marine Geology, GLY 521 Geophysics, GLY 583 Selected Topics, and others that prepare him for graduate work in marine geological environments or for some phases of professional work. A major interested in marine geology should contact the chairman of the department for further details.

OCEANOGRAPHY PROGRAM

The program in Oceanography offers one undergraduate course (OGY 311) and four graduate courses (OGY 521, 531, 541, 551). There are plans to offer additional courses at the graduate level and, eventually, a master's degree in Oceanography. Undergraduates with an interest in oceanography are urged to major in a field of their choice (Zoology, Botany, Geology, Chemistry, Physics or Engineering). After receiving the bachelor's degree, the student should seek a broad training in oceanography at the graduate level.

MATHEMATICS

Requirements for the B.A. Degree:

Majors must have 47 credits in mathematics, including MTH 101, 302, 303, 304, 305, 309 and 323. (MTH 101 is not required of those who begin with MTH 302. MTH 423 and MTH 424 are required for a major in mathematics for teaching.) Suggested upper level courses for a major in mathematics and for a major in mathematics for teaching in secondary school are as follows:

Majors in Mathematics: MTH 405, 406, 511, 513, 514, 515, 523, 524, 531, and 532.
Majors in Mathematics for Teaching: MTH 345, 405, 420, 445, and 531. Variation in course selection for special needs is to be done in consultation with the appointed adviser.

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

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<td>MTH 304, 323</td>
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<td>MTH elective (2)</td>
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Requirements for the M.A. Degree:

General requirements for graduate work are given on pages 130-135.

A thesis is optional. The thesis program requires a minimum of 36 credits of course work, plus the thesis carrying three to nine credits. The non-thesis program requires 45 credits of course work. In either case, one-half of the course work must be taken in courses numbered 600 or above and the program must total at least 45 credits.

For each of the above programs, one of the following three 8-hour courses is required: MTH 614-615, 624-625, 632-633, and eight hours in each of disciplines-analysis, algebra, and topology. MTH 691 is required each quarter, and may be omitted or taken more than six times only with the permission of the chairman.

A reading knowledge of either French, German, or Russian is required. A comprehensive examination will be given to candidates before recommending that the degree be granted.

For bachelor of arts degree secondary teachers in mathematics, see page 80. For master of arts degree for teachers in mathematics, see page 85. For an alternative degree, for Teacher's in Junior College see pages 92-93.

PHYSICS

Requirements for the B.A. Degree:

Majors must have one year of general physics (consisting of either PHY 211 through 216 and 315, or PHY 221 through 226), PHY 307, 341, 407, 409, 507, 509, plus one advanced laboratory. Additional physics courses sufficient to total 42 credits are required; 30 of these credits must be in courses numbered 300 or above. The student will also take MTH 401 and CHM 213.

Students registering for a physics course which has an associated laboratory must also register for the laboratory or obtain written permission from the chairman of the Physics Department to register for the course only. Selection of a foreign language, preferably French, German, or Russian, is also strongly recommended.

Requirements for the M.A. Degree:

General requirements for graduate work are given on pages 130-135.

A minimum of 45 credits, not more than nine of which may be for thesis research and writing. Of these 45 credits, 24 must be in courses numbered 600 or above. The mathematics proficiency test is also required.
When a student is admitted to the graduate program in physics, an advisory committee will be appointed by the chairman for each student. This committee will serve in the capacity of an advisor and will also keep close check on the progress of the student in his work. The committee will have the right to add any special requirement to meet any deficiency in background and will administer a comprehensive examination to the student before recommending that a degree be granted.

Programs for Teacher Education:

For a B.A. degree secondary school teacher in physics, see page 80. For M.A. degree for teacher in physics, see page 85. For teachers in Junior College, the M.A. degree in physics is recommended. For an alternative degree, see pages 92-93.

Division of Social Sciences

The social sciences are concerned with man, his development, problems and institutions. They help the student to understand the world around him and to become a more informed citizen. In addition, the social sciences can prepare a student for employment in business, government and social service professions, either upon graduation or upon completion of additional graduate study.

Students in the Social Science Division take majors in the departments of Anthropology, Geography, History, Political Science, Psychology and Sociology. Economics offers two majors, one in Liberal Arts and the other in the College of Business. In addition to these departmental majors, there are several kinds of interdisciplinary majors, such as International Studies and the social studies major for high school teachers.

Most social science majors require statistics. The student would do well to take elementary college mathematics courses to prepare him for statistics. All social sciences require clarity and accuracy of English expression. The student should take such English, speech and journalism courses as might contribute to this skill. Typing is not essential but is a useful skill and should be cultivated. The specific requirements of each major are outlined below.

A few graduate level courses are now offered in several social science departments and the Master of Arts degree is offered in Psychology and Sociology.

ANTHROPOLOGY

The major in Anthropology consists of a minimum of 44 quarter hours in the field. This must include ANT 201, 202, and 203 which are prerequisite to all subsequent anthropology courses. ANT 302, 311, 313, and 325 are required as intermediate level training in the main sub-divisions of the field and ANT 491, the Senior Seminar, completes the specific course requirements. The remaining 12 hours may be elective ANT courses determined by interest and availability.

Exceptions to course prerequisites require the consent of the chairman.
ECONOMICS

The liberal arts major in economics requires 54 credits in economics, including ECN 201-202, 301, 323, 331, 401, ACC 201-202-203, and 17 hours of upper level electives in Economics.

GEOGRAPHY

A major in geography consists of a minimum of 45 quarter hours in geography courses, including GPY 201, 301-302, and nine hours in each of the following: GPY 403, 405, 409. The latter three courses are to be planned and coordinated with the adviser, inasmuch as several different courses are included under each number. In addition, majors are required to take GLY 473 or 533, and a course in statistics (SSI 301 or MTH 345 or ECN 331).

Requirements for the M.A. Degree:

General requirements for graduate work are given on pages 130-135.

All students must complete 45 credit hours in graduate geography courses, following one of the two plans outlined below. A written and oral comprehensive examination covering the general field of geography is required before graduation. And the student must demonstrate his ability to translate into English the pertinent scientific literature from one modern foreign language. Foreign students, whose mother tongue is not English, may use English as their foreign language.

Thesis Program: The 45 credit hours in geography must include: GPY 501, 503, 505, 507, 603, 605, 607, and 699. Up to 8 credits outside the department may be elected with the approval of the student’s committee and major professor. An oral defense of the thesis is required.

Non-Thesis Program: The 45 credit hours in geography must include: GPY 501, 503, 505, 507, 601, 603, 605, and 607. Up to 4 credits outside the department may be elected with the approval of the student’s committee and major professor. Nine additional credit hours will be in supervised teaching at the university level.

GERONTOLOGY

Requirements for the M.A. Degree:

Students from a wide variety of undergraduate backgrounds are admitted for graduate work in gerontology. The Bachelor of Arts or Bachelor of Sciences degree in the biological sciences, the social sciences, and business are illustrative. Admission is based on work experience, graduate record examination scores, and grade point ratio.

The curriculum for a gerontology major includes four quarters of multidisciplinary courses in the Institute on Aging and a one-quarter field placement in the service agency. Including field placement, 56 quarter hours are offered in the field of specialization.

Appropriate undergraduate preparation or other graduate courses may be substituted for these courses.
HISTORY

Requirements for the B.A. Degree:

The undergraduate curriculum in history is composed of the introductory course HTY 100, the advanced courses HTY 485, 587, 591, 592 and the following fields: Field I Ancient History, consisting of courses HTY 201, 202, 321, 322, 325, 326, CLS 321, CLS 527, CLS 529; Field II Medieval History, consisting of courses HTY 221, 222, 324, 327, 328, 329, 423; Field III European History, consisting of courses HTY 231, 232, 333, 334, 335, 336, 337, 338, 341, 342, 345, 346, 347, 425, 426, 427, 428, 430, 431, 432, 455; Field IV American History consisting of courses HTY 211, 212, 301, 302, 315, 316, 317, 319, 320, 347, 409, 410, 411, 412, 421, 422; Field V Latin American History, consisting of courses HTY, 251, 252, 331, 353, 355, 451, 453; and Field VI Comparative History, consisting of courses HTY 327, 328, 331, 345, 346, 425, 426, 427, 428, 439, 430, 461, 465.

A minimum of 48 quarter hours is required for a major. From Part I, HTY 100 and any other two of the following sequences are required: HTY 201, 202; HTY 221, 222; HTY 231, 232; or HTY 251, 252. With the consent of a departmental advisor, cross-selection may be permitted. From Parts II and III, a minimum of sixteen hours is required in 300 or above level courses. Of these sixteen hours, twelve must be taken within one of the six fields. From Part III, at least one HTY 591 (Pro-Seminar), HTY 587, and HTY 592 are required (HTY 587 and 592 should be taken during the senior year). CLS 321, 527, and 529 will be accepted toward satisfying the requirements in the field of Ancient History.

History majors, in addition, should take SPE 201 (Fundamentals of Speech), ENG 325 (Advanced Expository Writing) and at least 27 quarter hours drawn from the following disciplines: Anthropology, Economics, Geography, Political Science, Psychology, Philosophy, Literature, the Humanities, and the Fine Arts. Majors intending to pursue graduate work should take a minimum of two years of classical or modern foreign language. Majors, whether intending graduate work or not, should have at least two courses from the Interdisciplinary Social Science Program.

Requirements for the M.A. Degree:

The graduate curriculum in History is composed of a core program, a thesis and course work in the following fields: Field I American History to 1865; Field II American History since 1865; Field III Early Modern European History; Field IV Modern European History; Field V Medieval History; Field VI Latin American History; and Field VII Comparative History.

In addition to the general requirements of the University, a candidate is required to complete a total of 52 quarter hours, 8 of which shall comprise a thesis. At least 30 quarter hours must be in formal regularly scheduled course work, 24 of which must be at the 600 level. Credit for any coursework at the 300 or 400 level must be approved by the Dean of the Division and reported to the USF Graduate Council and the Dean of Academic Affairs. Students applying for acceptance of work at this level must be given additional work not expected of regular students in these courses and the completed work must demonstrate a superior level of performance. Courses at the 500
level are acceptable for credit toward the Master's Degree without prior approval when taken as part of a planned degree program. The core courses, HTY 600, 601, 602 are required of all candidates.

A reading proficiency in one foreign language must be demonstrated. A satisfactory preparation in the core program, two fields and the thesis is required in a comprehensive examination for graduation.

INTERNATIONAL STUDIES

Three programs are currently offered in the International Studies Program: International Relations, Non-Western Studies, and Latin American Studies. The core curriculum common to the three includes five courses: ANT 201-203, ECN 201-202, GPY 201. Eighteen credits of an appropriate foreign language above the 100 level (or equivalent proficiency) are required.

Each student's program must be planned with the international studies adviser, who is empowered to make appropriate substitutions when educationally justified. All three majors are encouraged to take ENG 325 (4) and SPE 201 (5) or 363 (5).

Additional special requirements in the three programs follow. Up to nine credits may be substituted for these requirements by successfully passing CBS 395, Overseas Study.

International Relations Program

International Relations majors must select 10 courses from the list below, from at least three departments, and including a minimum of 6 courses of International Relations content (indicated by asterisks): ANT 302, 303°, (any foreign region), 415, 461; ECN 351°, 405°; GPY 301, 302, 407° (any foreign region); HTY 251, 252, 333, 334, 337, 338, 341, 342, 345, 346°, 347, 409°, 410°, 429°, 430°, 461°; POL 311°, 331°, 333°, 410, 411°, 415°, 421°, 445°, 561°, 573; SOC 371, 541, 571; SSI 311°, 315°, 341, 343, 345, 347, 361°, 449°, 505°.

Non-Western Studies Program

Non-Western Studies majors must select 10 courses from the list below, from at least three departments, and including a minimum of 6 courses of Non-Western content (indicated by asterisks): ANT 302, 303° (Asia or Africa), 415, 461°; ECN 351, 405; GPY 301, 302, 407° (Asia or Africa); HTY 409, 410, 461°; HUM 539°, 541°, 542°, 543°, POL 331°, 410°, 411°, 421, 445, 561°, 573°; SOC 371, 541, 571; SSI 343°, 345°, 347°, 361°, 449°, 505.

Latin American Studies Program

Latin American studies majors must select 10 courses from the list below, from at least three departments, and including a minimum of 6 courses of Latin American content (indicated by asterisks): ANT 302, 303° (Latin America), 415, 461; ECN 351, 405, 451, 461; GPY 301, 302, 407° (Latin America); HTY 251°, 252°, 353°, 355°, 409, 410, 451°, 453°, 461, 591° (Latin America); HUM 545°; POL 331, 561; SOC 371, 541, 571; SSI 311, 315, 341°, 361, 449, 505.
POLITICAL SCIENCE
Requirements for the B.A. Degree:

Majors must have at least 44 credits in the field. Each major must pursue a core program, including POL 199, 201, 203 or 453, 431 or 432, 461 or 462 or 463, 311 or 331, 351, 491, and SSI 301.

Requirements for the M.A. Degree:

General requirements for graduate study are given on pages 130-135. The student must complete a minimum of 45 quarter hours of graduate political science courses. At least 24 hours must be at the 600 level. The minimum of 30 quarter hours must be taken in formal, regularly scheduled classes, 15 hours of which must be at the 600 level. Courses at the 500 level are acceptable for credit towards the masters degree when taken as part of a planned degree program, approved by both the student's adviser and the Department of Political Science. The following courses are required of all graduate students in this program: POL 600 or POL 643 or both.

A minimum of 28 quarter hours must be taken in political science; 8 quarter hours of approved electives outside the Department, and 9 quarter hours of thesis credits. A comprehensive written examination will follow the completion of the course work toward the degree.

Students who do not have an undergraduate major in political science, or its equivalent, may be admitted to candidacy in the program upon consent of the Department. Such students may be required to take additional courses beyond the minimum requirements.

A minimum of one-half of the masters degree program must be completed on campus. The student must be registered as a full-time graduate student for one quarter or two summer sessions.

PRE-LAW

The American Association of Law Schools suggests that students preparing for law school should acquire the following basic skills: (1) effective expression, both written and oral, in English language; (2) critical practice in the use of creative and analytical reasoning in a variety of problem solving situations.

Students wishing to major in pre-legal studies should consult with the pre-law advisor.

PSYCHOLOGY
Requirements for the B.A. Degree:

Majors must complete at least 40 credits in the field. All majors must complete PSY 201, 311, 411, SSI 301 and select three of the following courses: PSY 323, 331, 433, 501, and either 505 or 506. In addition, 12 elective credits in Psychology courses must be completed. Functional mathematics and biological science in the College of Basic Studies are recommended. Otherwise students majoring in psychology are encouraged to complete a varied undergraduate program.
Requirements for the M.A. Degree:

General requirements for graduate study are given on pages 130-135. The student must complete 45 credit hours of graduate psychology courses. Approval of undergraduate courses for college credit must be given by both the student's adviser and department chairman. The following courses are required of all graduate students in this program: PSY 601, 602. The student also selects three of the following courses: either PSY 501 or 507; either 505 or 506; 603, 605, either 606 or 608. The remaining credits will be selected from available psychology courses at the graduate level. A thesis is required and the student must successfully complete an oral examination on the thesis and courses which he has completed in the program.

SOCIAL SCIENCE DIVISIONAL MAJOR

This major is designed to provide broad training for superior students whose interests or vocational objectives cross disciplinary lines. (Students who have difficulty maintaining a B average or students with restricted interests should not attempt it.) It requires 64 credits in the division, with at least 20 credits in one discipline, to be selected with the consent of the major adviser. At least three courses are required in Interdisciplinary Social Sciences (Prefix "SSI"), one of which shall be SSI 301. At least 40 hours must be upper level.

A different kind of divisional major for prospective teachers of social studies is described under the College of Education requirements.

SOCIOLGy

Requirements for the B.A. Degree:

The major consists of a minimum of 40 quarter hours which must include SOC 201, 321, 491, 515 and SSI 301; at least one course from SOC 331, 533, 535; and at least one from SOC 341, 345, 543.

The following courses may not be counted in the 40 hour minimum for the major but may be elected as additional courses: SOC 251, 261, 481, and 505. A model program of recommended sequences may be obtained from the Sociology Department.

Requirements for the M.A. Degree:

Minimum of 45 credits including SOC 611, 621, 623, 691 and 692, and a thesis.

Admission to the M.A. Program: Satisfactory score on the Graduate Record Examination (Aptitude); two letters of reference from previous instructors; four courses in Sociology including Statistics and Methods of Research (SSI 301 and SOC 321) or equivalent. Documents are sent to the Registrar. Instructions for applicants are available from the Sociology Department. General requirements for graduate study are given on pages 130-135.
GRADUATE STUDY

Master’s Degree Programs Offered

COLLEGE OF BUSINESS ADMINISTRATION

Master of Business Administration.

COLLEGE OF EDUCATION

Master of Arts degree programs.

Elementary Education (with emphasis on Curriculum, Supervision or Reading)

Secondary Teaching Fields:
  - Distributive Education
  - English Education
  - English/Humanities Education
  - French Education
  - Mathematics Education
  - Science Education (Biology, Chemistry, Earth Science, Physics)
  - Social Science Education
  - Spanish Education

K-12 Certification Areas:
  - Art Education
  - Guidance
  - Library and Audio Visual
  - Music Education
  - Reading Education
  - Special Education: Emotionally Disturbed Children, Gifted Children and Youth, Mental Retardation or Speech Pathology, Varying Exceptionalities

Junior College Teaching:
  - Astronomy
  - Biology
  - Chemistry
  - English
  - French
  - Geography
  - Geology

  - Mathematics
  - Music
  - Physics
  - Psychology
  - Sociology
  - Spanish
  - Speech
  - Visual Arts

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COLLEGE OF ENGINEERING
A Master of Engineering (Electrical) and a Master of Engineering (Administra­tion), Master of Science in Engineering

COLLEGE OF LIBERAL ARTS
Master of Arts degree programs.
- Astronomy
- Bacteriology
- Botany
- English
- French
- Geology
- Mathematics
- Physics
- Psychology
- Sociology
- Spanish
- Speech
- Zoology

Master of Fine Arts degree in Visual Arts.
Master of Science degree in Chemistry.
Master of Arts degree in Gerontology.

Ph.D. Programs Offered

COLLEGE OF LIBERAL ARTS
Ph.D degree in Biology.

Requirements for Admission to Graduate Study

1. DEGREE SEEKING GRADUATE STUDENTS

Admission requirements for a degree-seeking graduate student shall include:

(a) A Baccalaureate degree or its equivalent from an approved college or university with an academic average of "B" in the last half of all credits earned as an undergraduate prior to receiving a degree, or other acceptable evidence of ability to perform at the "B" level in his graduate program.

(b) Scores on the Graduate Record Examination aptitude test satisfactory to the program or department in which students will do their work. A student may be provisionally admitted by presenting satisfactory scores on such examinations as the National Teacher Examination or Business Administration Examination, with the understanding that the GRE will be taken during the first term of enrollment. These examinations must have been taken within five years preceding application for admission.

(c) Approval by an official of the program for which the student is applying.

(d) Any additional requirements which are specified by his program.

(e) Foreign students are required to present satisfactory scores on the Test of English as a Foreign Language.

(f) Acceptance into an approved program leading directly to a graduate degree.
2. NON-DEGREE SEEKING GRADUATE STUDENTS

Students who are qualified to enroll in specific graduate courses but who either do not desire to enroll in a degree program, or do not meet all admission requirements for a degree program, or who are awaiting admission processing may be admitted as "non-degree graduate students." Up to 12 hours of credit earned while in this status may be applied to graduate requirements under the following conditions:

(a) At the time of enrollment in the course, the student must have a Baccalaureate degree, or he must complete degree requirements during that term and the course must be beyond those requirements.

(b) The course must be of such level and relevance as to be included in the degree program approved for this student should he seek admission to degree seeking status.

Regulations Governing Graduate Study

Master's Degree

MAJOR PROFESSOR OR ADVISOR

A major professor or adviser will be named for the student in his first term of work. The major professor is named by the division or department concerned, with the agreement of both student and professor.

PROGRAM OF STUDY AND COURSE REQUIREMENTS

During the first term of study, in consultation with his adviser, the student should plan a program of work to be completed for satisfaction of degree requirements.

A minimum of 45 quarter hours is required for a Master's degree, at least 24 hours of which must be at the 600 level. At least 30 hours must be in formal, regularly scheduled course work, 15 of which must be at the 600 level. Courses at the 500 level are acceptable for credit towards the Master's degree when taken as a part of a planned degree program. (For five year programs, refer directly to the statement under the program.)

A major professor adviser may approve up to 6 hours of 400 level courses if taken as part of a planned degree program. Additional graduate credit may be earned in 300 or 400 level courses only if specifically approved by the appropriate dean and by the Graduate Council. Students enrolled in undergraduate courses as a part of their planned degree program will be expected to demonstrate a superior level of performance.

QUALITY OF WORK

Graduate students must attain an overall average of 3.0 (B) in all courses. No grade below "C" will be accepted toward a graduate degree, but all grades will be counted in computing the overall average (GPA).

LOAD

A student taking nine or more hours of graduate work in a full quarter
will be classified as a full-time student. The normal maximum load is 13 hours in a full quarter.

RESIDENCY

Each college specifies residency requirement as an integral part of its statement about the Master's degrees it offers. (See the residency requirement for the program in which you wish to enroll.)

TRANSFER CREDIT

Transfer of credit from another recognized graduate school is limited to nine quarter hours. All transferred credit must (1) be evaluated as graduate credit by the Director of Admissions, (2) be approved by the program or college concerned, and (3) have been completed with grades of "B" or better.

TIME LIMIT

All work applicable to the Master's degree requirements must be completed within the seven years immediately preceding the awarding of the degree.

APPLICATION FOR DEGREE

By the end of the third week of the quarter in which he expects to receive a degree, the student must file an application for a diploma with the Registrar.

FINAL COMPREHENSIVE EXAMINATION

Prior to clearance for the degree, the candidate must perform satisfactorily on a comprehensive examination in his major field.

THESIS

When a thesis is required, two copies, an original and one other legible copy, of the approved thesis must be submitted to the Vice President of Academic Affairs before the student may be certified for his degree. These copies will serve for appropriate filing in the Library of the University.

Ph.D. Degree

The degree of Doctor of Philosophy is granted in recognition of high attainment in a specific field of knowledge. It is a research degree and should not be conferred solely on the completion of credits and a sequence of courses or by the acquiring of a number of terms of residency. The amount of residence and the requirements suggested below are a minimum. The degree shall be granted on evidence of proficiency and distinctive achievement in a specified field, by the demonstration of the ability to do original independent investigation and the presenting of these findings with a high degree of literary skill in a dissertation.

SUPERVISORY COMMITTEE

A student working for his Ph.D. degree must elect to do the majority
of his work in a specifically approved area or department, and the remainder of his work in related fields. As soon as possible after starting work leading toward a Ph.D. degree, a supervisory committee shall be appointed for the student by the Dean of his college on recommendation of the chairman of the department or area in which the degree is sought. This committee shall approve the outline of the course of study to be followed by the student, conduct qualifying examinations for the student, supervise the research of the student and conduct final oral examinations for the student. The director of the research shall serve as chairman of the committee up to the final oral examination. This committee shall certify to the Dean of its college when all requirements have been met and the degree is to be granted. The supervisory committee shall consist of at least five members, at least three of which must come from the area in which the major work for the degree will be done.

**LANGUAGE REQUIREMENT**

Before a student is eligible to take the qualifying examination, he must have completed a reading knowledge of two foreign languages (except for substitutions noted below.) Special work done outside the student's field of concentration and related subjects may be substituted for one language, provided this exception is recommended by the student's advisory committee and is approved by the Dean of Academic Affairs.

**RESIDENCE**

The minimum requirement shall be three academic years of work above the Bachelor's degree. At least one academic year of residence must be on the campus at the University of South Florida. An academic year's residency shall be defined as carrying a minimum of nine hours of graduate work per term or be certified by the chairman of the advisory committee that the student is doing full time research or a combination of these two. Whenever a student wishes to be considered as in full time residence, he must pay the full registration fee. Any graduate work counted toward the fulfillment of the requirement of the Ph.D. degree after admission to candidacy must be done within a seven calendar year period.

**QUALIFYING EXAMINATION**

At least one academic year before the degree may be granted, the student must pass a written qualifying examination over the subject matter of his major and related fields. An oral examination may also be required by his committee. The completion of the qualifying examination before mid-term will allow that term to be counted in full toward the academic year required. If the degree is not conferred within five calendar years of the qualifying examination, the qualifying examination must be taken again.

**ADMISSION TO CANDIDACY**

A graduate student does not become a candidate for the Ph.D. degree until he is formally admitted to candidacy. This admission may not be granted until a certified statement from his advisory committee to the Dean of his
college is submitted stating that he has successfully completed his qualifying examinations and in the opinion of his advisory committee he has demonstrated the qualifications necessary to successfully complete his requirements for the degree. The certificate of admission shall be issued by the Dean of his college, and the degree shall not be granted in less than one academic year after formal admission to candidacy (a school term shall be considered as part of this academic year, provided the admission is before mid-term).

Dissertation

At least two weeks prior to the final oral examination, a candidate must submit to the Dean of his college, for approval of mechanical form and content, a typewritten copy of a completed dissertation and abstract signed by the committee. The dissertation must be the candidate’s own work and must result from research done primarily by the candidate. The research from this dissertation must be original and worthy of publication in a scholarly journal or book.

Final Oral Examination

The final oral examination in general should be a defense of the student’s dissertation; however other areas of the student’s work may also be included as part of this examination. It should be conducted by his advisory committee, but shall be chaired by a person, appointed by the Dean of his college, from a field outside of the student’s major or related fields.

Final Filing of Dissertation

Two copies, an original and one other legible copy, of the approved dissertation must be submitted to the Dean of Academic Affairs before the student can be certified for his degree. These copies will serve for appropriate filing in the Library of the University.
COURSE DESCRIPTIONS

All courses offered for credit by the University of South Florida are listed on the following pages in alphabetical order according to subject area.

The first line of each description includes the prefix and course number, title, and number of credits. Credits separated by a colon indicate concurrent lecture and laboratory courses taught as a unit:

PHY 211-212. GENERAL PHYSICS (3:1)

Credits separated by commas indicate unified courses offered in different quarters:

HTY 211, 212. AMERICAN HISTORY (3,3)

Credits separated by a hyphen indicate variable credit:

CBS 395. OVERSEAS STUDY (1-9)

The following abbreviations are utilized in various course descriptions:

PR Prerequisite
CI With the consent of the instructor
CC With the consent of the chairman of the department or program
CR Corequisite
lec-lab. Lecture and laboratory

Course descriptions are listed under the following headings (prefix in parentheses):

Accounting (ACC)
American Studies (AMS)
Anthropology (ANT)
Art (ART)
Astronomy (AST)
Basic Studies (CBS)
Biology, Interdisciplinary (BIO)
Botany and Bacteriology (BOT)
Chemistry (CHM)
Classics and Ancient Studies (CLS)
Cooperative Education (COE)
Dance (DAN)
Developmental Mathematics (DMA)
Economics (ECN)
Education:
  Art Education (EDA)
  Business Education (EDB)
  Curriculum (EDC)
  Distributive Education (EDD)
  Elementary Education (EDE)
  English Education (EDT)
  Foreign Language Education (EDX)
  Foundations (EDF)
  Guidance (EDG)
  Humanities Education (EDY)
  Junior College Education (EDH)
  Library-Audio Visual Education (EDL)
  Music Education (EDM)
  Natural Science-Mathematics Education (EDN)
  Physical Education for Teachers (EDP)
  Reading Education (EDR)
  Social Studies Education (EDW)
  Special Education (EDS)

Engineering:
  Basic Engineering (EGB)
  Electrical and Electronic Systems (EGE)
  Energy Conversion (EGR)
  Industrial Systems (EGS)
  Structural Materials and Fluids (EGX)
  Technical Service Course Work (ETK)

English (ENG)

Finance (FIN)

Fine Arts, Intradivisional (FNA)

French (FRE)

General Business Administration (GBA)

Geography (GYP)

Geology (GLY)

German (GER)

Gerontology (AGE)

History (HTY)

Humanities (HUM)

Interdisciplinary Language-Literature (LLI)

Italian (ITA)

Journalism (JNM)

Linguistics (LIN)

Management (MGT)

Marketing (MKT)

Mathematics (MTH)

Music (MUS)

Oceanography, Interdisciplinary (OGY)

Office Administration (OAD)

Philosophy (PHI)

Physical Education, Basic (PED)

Physics (PHY)

Political Science (POL)

Psychology (PSY)
Spanish (SPA)
Speech (SPE)
Speech Pathology and Audiology (SAI)
Theatre Arts (TAR)
Zoology (ZOO)

NOTE: Courses numbering 500 through 599 are open only to upper division and graduate students. Courses numbering 600 and above are open to graduate students only.

ACCOUNTING

Faculty: L. C. Jurgensen, chairman; Causey, Deyo, Hurd, McClung, McCormick, Merriam, Merritt, Lasseter, Roberson, West, Zelechowski.

ACC 201. ELEMENTARY ACCOUNTING (3)
Study of basic accounting principles including the recording and reporting of financial activity. The preparation and interpretation of financial statements.

ACC 202. ELEMENTARY ACCOUNTING (3)
Pr: ACC 201. Accounting theory and practices for various equity structures.

ACC 203. ELEMENTARY ACCOUNTING (3)
Pr: ACC 202. Financial statements, reports, and other analytical tools used by management.

ACC 301. INTERMEDIATE ACCOUNTING I (3)
Pr: ACC 203. Principles underlying financial statements; current assets; current liabilities.

ACC 302. INTERMEDIATE ACCOUNTING II (3)
Pr: ACC 301. Continuation of principles underlying financial statements; present values; long-term investments; plant and equipment; intangibles; long-term liabilities.

ACC 303. INTERMEDIATE ACCOUNTING III (3)
Pr: ACC 302. Continuation of principles underlying financial statements; capital structure; analysis and interpretation of accounting data; funds flow analysis.

ACC 305. MANAGERIAL ACCOUNTING (3)
Pr: ACC 203 and ECN 201. The use of accounting data in planning and controlling business operations. Special emphasis is placed on budgetary controls, cost-volume-profit analysis, long-range planning, and tax considerations.

ACC 323. GOVERNMENTAL ACCOUNTING (3)
Pr: ACC 203. Study of the application of fund accounting principles to governmental units and agencies including preparation, administration, and interpretation of budgets and financial statements.

ACC 401. ADVANCED ACCOUNTING (3)
Pr: ACC 303. The study of special problems in accounting related to partnerships, sales procedures, fiduciaries, and insolvencies.

ACC 402. ADVANCED ACCOUNTING (3)
Pr: ACC 303. Special topics including consolidations and foreign operations.

ACC 411. FEDERAL TAXES (3)
Pr: ACC 203. An introduction to the federal income tax structure. Use of tax services and the concept of taxable income as applies to individuals.

ACC 412. FEDERAL TAXES (3)
Pr: ACC 411. Continued study of the federal income tax structure. Special topics and the concept of taxable income as applied to corporations.

ACC 413. FEDERAL TAXES (3)
Pr: ACC 411. The concept of taxable income as applied to partnerships and fiduciaries. Introduction to estate, gift and social security taxes.
ACC 421. COST ACCOUNTING I (3)
PR: ACC 203. Deals with the identification of costs relevant for decision-making and the accounting techniques used in determining, analyzing, and allocating these costs.

ACC 422. COST ACCOUNTING II (3)
PR: ACC 421. A continuation of accounting for, and analysis of, costs as related to departments, products, or issues for management decisions.

ACC 423. AUDITING (3)
PR: ACC 303 and 421. Principles and procedures of internal and public auditing. The ethics, responsibilities, standards, and reports of professional auditing.

ACC 424. ADVANCED AUDITING (3)
PR: ACC 423. Continuation of ACC 423. Emphasis directed towards the application of auditing standards and techniques in achieving audit objectives. Relationship of professional auditing to regulatory authorities.

ACC 425. BUDGETING (3)
PR: ACC 421. The development of budgets and their relation to expense and cost control, including the use of standard cost as a budgetary tool.

ACC 431. CONTROLLERSHIP (3)
PR: CI. The problems of financial officers of business organizations and the theory and techniques used in solving these problems.

ACC 433. C.P.A. REVIEW (3)
PR: CI. A review of the various areas of accounting, including concepts; cost, governmental, asset, liability, and equity accounting; consolidations; financial statements; and budgeting.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

ACC 501. ACCOUNTING CONCEPTS AND METHODOLOGY I (3)
A study of basic accounting principles including the recording of transactions and the preparation and interpretation of financial statements.

ACC 502. ACCOUNTING CONCEPTS AND METHODOLOGY II (3)
PR: ACC 501. A continuation of ACC 501. Consideration is given to budgeting and cost accounting. Emphasis is placed upon the analysis of financial condition and business operations through an understanding of accounting statements and reports.

FOR GRADUATE STUDENTS ONLY

ACC 601. MANAGERIAL ACCOUNTING AND CONTROL (3)
A study of the relevancy and limitations of accounting measurement as a basis for business decision-making. Includes a review of fundamental accounting measurement theory and related tax implications.

ACC 602. MANAGERIAL ACCOUNTING AND CONTROL (3)
PR: ACC 601. The relevancy and limitation of cost information in business decision-making. Emphasis is oriented towards the role of cost accounting measurements in: (1) planning and controlling current operations; (2) special decisions and long-range planning; and (3) inventory valuation and income determination.

ACC 605. ADVANCED ACCOUNTING THEORY (3)
A study and evaluation of the development and evolution of current accounting theory and measurement concepts. The definition of accounting objectives and goals and the development of measurement models.

ACC 607. SYSTEMS DESIGN AND DATA PROCESSING (3)
The design and operation of contemporary accounting systems including the
relevance of data processing and statistical methods to the system of financial information and control.

ACC 609. CONTEMPORARY PROBLEMS IN ACCOUNTANCY (3)
PR: ACC 605 or CI. Concentrated study of current problem areas in the field of accountancy.

ACC 611. RESEARCH IN FEDERAL TAXATION (3)
A study of the development of tax law and its implications in business decisions. Tax planning and tax research are emphasized.

ACC 621. MANAGERIAL COST ANALYSIS (3)
Measurement, interpretation, planning, and control of costs by means of predetermined standards and variance analysis. Use of accounting and statistical information in preparing budgets and controlling operations.

ACC 623. CASE PROBLEMS IN PROFESSIONAL ACCOUNTANCY (3)
The study of elements of public accounting practice, professional conduct, auditing principles and reporting standards. The relationship of the field of public accounting to federal and state agencies.

AMERICAN STUDIES

Faculty: Harkness, Moore, O'Hara, Robertson, Stanton, Warner.

AMS 301. INTRODUCTION TO AMERICAN CIVILIZATION (4)
Integration of major aspects of American life between 1898 and 1914. Should be taken the first term a student becomes an American Studies major. Elective for non-majors.

AMS 311. THE COLONIAL PERIOD (4)
Puritan heritage: The pattern of American culture as revealed through an examination of selected writings and pertinent slides and recordings dealing with the art, architecture and music of the period. Elective for non-majors.

AMS 312. THE AGRARIAN MYTH (4)
Frontier heritage: The pattern of American culture as revealed through an examination of selected writings and other pertinent materials dealing with American faith and the American frontier environment (the land, city, machine). Elective for non-majors.

AMS 313. REGIONALISM, NATIONALISM, INTERNATIONALISM (4)
Selected writing and other pertinent materials are used to examine the relationships between nationalism and internationalism with a view toward understanding America's development toward political and cultural maturity. Elective for non-majors.

AMS 383. SELECTED TOPICS IN AMERICAN STUDIES (4)
Offerings to include The Negro American; Eminent Americans; The American City: Past, Present and Future; The American Dream: Reality and Myth.

AMS 483. SELECTED TOPICS IN AMERICAN STUDIES (4)
Offerings to include The Negro American; Eminent Americans; The American City: Past, Present and Future; The American Dream: Reality and Myth.

AMS 491, 492. SENIOR SEMINARS IN AMERICAN STUDIES (4, 4)
Intensive study of masterpieces representative of several aspects of American culture.

AMS 493. VIOLENCE IN THE U.S.A. FROM THE REVOLUTION TO THE PRESENT (4)

ENG. 305. MAJOR AMERICAN WRITERS TO 1865 (4)
See course description under ENGLISH.

HTY 411. AMERICAN SOCIAL AND INTELLECTUAL HISTORY (4)
See course description under HISTORY.
ANTHROPOLOGY

Faculty: Grange, chairman; Bonney, Kessler, Waterman, Orona

ANT 201. INTRODUCTION TO ANTHROPOLOGY (4)
A general survey of anthropology emphasizing basic concepts, outlining the development of the field and illustrating current problems and applications.

ANT 202. HUMAN ORIGINS (4)
PR: ANT 201. A study of human biological and cultural origins with emphasis on human evolution and paleolithic archaeology.

ANT 203. SOCIAL ANTHROPOLOGY (4)
PR: ANT 201. A study of the elements of functioning cultures, including kinship systems, patterns of marriage, social and political structure and economic organization.

ANT 302. ETHNOLOGY (4)
PR: ANT 201-202-203. A survey of cultures of the world using the culture area concept and/or comparative analysis to illustrate cultural distributions and levels of socio-cultural complexity.

ANT 303. REGIONAL ANTHROPOLOGY (3-6)
PR: ANT 201-202-203. A survey of cultures and anthropological problems in a limited area or region. May be repeated as topics vary. (1) Indians of North America (2) Cultures of Africa (3) Cultures of the Pacific (4) Indians of Latin America (5) Specified areas such as Asia, Southwestern U.S. or Florida depending on current interest and staff.

ANT 311. PHYSICAL ANTHROPOLOGY (4)
PR: 201-202-203. An advanced course in the scope and methods of physical anthropology with emphasis on current research topics.

ANT 313. LANGUAGE AND CULTURE (4)

ANT 325. ARCHAEOLOGY AND CIVILIZATION (4)
PR: ANT 201-202-203. An examination of the archaeological and ethnological data and theory concerning the development of food producing cultures and complex societies.

ANT 403. HISTORY OF ANTHROPOLOGICAL THEORY (4)
PR: ANT 201-202-203. Intensive reading of classics in the development of anthropological thought, and periodic seminar discussion and analysis.

ANT 411. METHODS IN ANTHROPOLOGY (3-6)
PR: ANT 201-202-203; and CI. Study and application of a selected field or laboratory method in anthropology. Prerequisites beyond ANT 201-202-203 will depend on area of study and will be determined by consultation with instructor in advance of registration. May be repeated as topics vary. (1) Archaeological Field Methods (2) Laboratory Methods in Archaeology (3) Laboratory Methods in Physical Anthropology (4) Field Methods in Cultural Anthropology (5) Etc., as specified.

ANT 415. ACCULTURATION AND CULTURE CHANGE (4)
PR: ANT 201-202-203. A study of theories of culture change and a consideration of the role of anthropologist in applied or action anthropology.
ART 423. PROBLEMS IN NEW WORLD ARCHAEOLOGY (3-5)
PR: ANT 201-202-203. A general review of new world archaeology or detailed consideration of the archaeology of a specified area or time period in North or South America. May be repeated as topics vary.

ANT 461. THE COMMUNITY IN ANTHROPOLOGICAL PERSPECTIVE (4)
PR: ANT 201-202-203. The anthropological approach to the analysis and study of modern communities and peasant societies.

ANT 471. SPECIAL TOPICS IN ANTHROPOLOGY (2-6)
PR: ANT 201-202-203. A detailed study of current knowledge and problems in an area of topical interest such as ethnomusicology, primitive religion, or cultural ecology. May be repeated as topics vary.

ANT 491. SENIOR SEMINAR IN ANTHROPOLOGY (4)
PR: Senior Standing with Major in Anthropology, or equivalent. A seminar approach to the integration of the fields of anthropology. Designed to help the student refocus and come to a better understanding of the nature of anthropology.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

ANT 501. CULTURE AND PERSONALITY (4)
PR: ANT 201-202-203 or CI. An intensive examination of the development of psychological anthropology and consideration of various theories concerning the relationship between personality and culture.

ANT 581. INDIVIDUAL RESEARCH (3-6)
PR: 24 hours in Anthropology or CI. Individual guidance in a selected research project.

ANT 585. DIRECTED READINGS (1-6)
PR: 24 hours in Anthropology or CI. Individual guidance in concentrated reading on a selected topic in anthropology.

FOR GRADUATE STUDENTS ONLY

ANT 601. ANTHROPOLOGY TODAY (4)
PR: CI. A graduate level survey of contemporary anthropology primarily intended for graduate students in Social Science Education.

ART

Faculty: Saff, chairman; Aydelott, J. R. Camp, Covington, Cox, Dietrich, Fager, Gelinas, Houk, Kowalek, Kronsoble, Larsen, Manley, McCracken, Pappas, Rampolla, Stoeveken.

ART 201. VISUAL FUNDAMENTALS—DRAWING I (3)
Introduction to problems in drawing techniques and media.

ART 202. VISUAL FUNDAMENTALS—DESIGN I (3)
Introduction to problems primarily in two-dimensional design.

ART 301. VISUAL FUNDAMENTALS—DRAWING II (3)
PR: ART 201. Further exploration of drawing techniques and media.

ART 302. VISUAL FUNDAMENTALS—DESIGN II (3)
PR: ART 202. Further exploration of two and three-dimensional design, including letter forms as design elements.

ART 310. INTRODUCTION TO ART (3)
An introductory course for the student who does not intend to major in art.
ART 401. VISUAL FUNDAMENTALS—DRAWING III (3)
PR: ART 301. Continuation of ART 301. May be repeated.

ART 402. VISUAL FUNDAMENTALS—DESIGN III (3)
PR: ART 302. Continuation of ART 302. May be repeated.

ART 411. PAINTING TECHNIQUES (3)
PR: ART 401 and ART 402.

ART 421. SCULPTURE TECHNIQUES (3)
PR: ART 401 and ART 402.

ART 431. CERAMIC TECHNIQUES (3)
PR: ART 401 and ART 402.

ART 441. GRAPHIC TECHNIQUES (3)
PR: ART 401 and ART 402. Sec 001 Intaglio; Sec 002 Lithography; Sec 003 Silkscreen.

ART 451. JEWELRY AND CRAFTS (3)
PR: ART 401 and ART 402. Introductory course in the design and execution of jewelry and craft objects.

ART 461. PHOTOGRAPHY I (3)
PR: ART 401 and ART 402, or CI. Consideration of basic technical and aesthetic factors involved in using black and white still photography as a vehicle for visual, artistic expression.

ART 462. PHOTOGRAPHY II (3)
PR: ART 461. Consideration of basic technical and aesthetic factors involved in using color still photography as a vehicle for visual, artistic expression.

ART 465. CINEMATOGRAPHY I (3)
PR: ART 462. Consideration of basic technical and aesthetic factors involved in using black and white silent motion pictures as a vehicle for visual, artistic expression.

ART 466. CINEMATOGRAPHY II (3)
PR: ART 465. Consideration of basic technical and aesthetic factors involved in using color and sound motion pictures as a vehicle for visual, artistic expression.

ART 470. PREHISTORIC AND ANCIENT ART (3)
A comprehensive study of Paleolithic, Neolithic, Egyptian, Assyrian and Mesopotamian painting, sculpture and architecture.

ART 471. GREEK AND ROMAN ART (3)
A comprehensive study of Aegean, Mycenaean, Etruscan, Greek and Roman painting, sculpture and architecture.

ART 472. MEDIEVAL ART (3)
A comprehensive study of early Christian, Byzantine and Medieval painting, sculpture, architecture and manuscript illumination.

ART 473. RENAISSANCE ART (3)
A comprehensive study of Renaissance and Mannerist painting, sculpture and architecture in Italy and Northern Europe.

ART 474. BAROQUE AND ROCOCO ART (3)
A comprehensive study of the painting, sculpture and architecture in France, Italy, Spain and the Netherlands in the seventeenth and early eighteenth centuries.

ART 475. NINETEENTH CENTURY ART (3)
A comprehensive study of nineteenth century painting, sculpture and architecture in France and England.

ART 476. TWENTIETH CENTURY ART (3)
A comprehensive study of painting, sculpture and architecture from Cezanne to the present in Europe and the United States.

ART 477. ORIENTAL ART (3)
An introduction to the history of the arts of China, Japan and other non-Western countries.
ART 481. DIRECTED STUDY (1-6)
PR: CC. May be repeated. Independent studies in the various areas of Visual Arts. Course of study and credits must be assigned prior to registration.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

ART 511. PAINTING (3)
PR: ART 411. May be repeated. Advanced problems in the various painting techniques. Emphasis on individual creative expression.

ART 513. SPECIAL STUDIES IN ART HISTORY (3)
PR: CI. An intensive study of a particular period or problem in art history. May be repeated.

ART 521. SCULPTURE (3)
PR: ART 421. May be repeated. Advanced problems in the various techniques of sculpture. Emphasis on individual creative expression.

ART 531. CERAMICS (3)
PR: ART 431. May be repeated. Advanced problems in the various ceramic techniques, including throwing and glaze calculation.

ART 541. GRAPHICS (3)
PR: ART 441. May be repeated. Advanced problems in the various graphic techniques. Emphasis on individual creative expression. Sec 001 Intaglio; Sec 002 Lithography; Sec 003 Silkscreen.

ART 561. PHOTOGRAPHY III (3)
PR: ART 462. Advanced work in color and black and white photography culminating in development of personal photographic artistic statement.

ART 565. CINEMATOGRAPHY III (3)
PR: ART 466. Advanced studio work using black and white, color and sound as technical and aesthetic factors in visual, artistic productions.

ART 569. PURE CINEMA AS AUTONOMOUS VISUAL EXPRESSION (3)
PR: ART 461 or CI. Consideration of historical developments in cinematography emphasizing uses of special technical and visual possibilities unique to the aesthetics of the film art.

ART 570 CRITICAL STUDIES IN ART HISTORY (3)
PR: CI. Specialized intensive studies in art history. Specific subject matter varies. To be announced at each course offering. May be repeated.

ART 581. RESEARCH (1-6)
PR: CC. May be repeated.

FOR GRADUATE STUDENTS ONLY

ART 611. PAINTING (3)
PR: CI. May be repeated.

ART 621. SCULPTURE (3)
PR: CI. May be repeated.

ART 631. CERAMICS (3)
PR: CI. May be repeated.

ART 641. GRAPHICS (3)
PR: CI. May be repeated. Sec 001 Intaglio; Sec 002 Lithography; Sec 003 Silkscreen.

ART 665. CINEMATOGRAPHY (3)
PR: CI. Advanced development of technical and aesthetic factors in the visual, artistic production of films. May be repeated.

ART 670. ART HISTORY (3)
PR: CI. Special intensive studies in assigned areas. May be repeated.
ART 681. RESEARCH (1-6)  
PR: CI. May be repeated.  
ART 699. THESIS (1-6)  
PR: CI. May be repeated.

ASTRONOMY

Faculty: Eichhorn-von Wurmb, chairman; Devinney, Sofia, C. A. Williams, Wilson.

AST 201. INTRODUCTORY ASTRONOMY (5)  
Aspects of the sky, the earth’s motion and time-keeping, the moon, eclipses, astronomical instruments, motions and physical features of planets, comets and satellites.

AST 202. INTRODUCTORY ASTRONOMY (5)  
PR: AST 201 or CI. The stars, stellar atmospheres and interiors, interstellar matter, the local and exterior galaxies, cosmology.

AST 361. ASTRONOMICAL OBSERVING AND MEASURING (1-3)  
PR: AST 201 and 202 or CI. Actual measurements at the telescope and in the laboratory; evaluation of the data. May be repeated up to three credit hours.

AST 371. CONTEMPORARY THINKING IN ASTRONOMY (for non-specialists) (5)  
PR: Junior or senior standing or CI. Current concepts of astronomy and space science of general interests; background facts; artificial satellites, space probes; surface conditions of planets and evolution of the stars; cosmology.

AST 413. GEOMETRY AND KINEMATICS OF THE UNIVERSE (4)  

AST 443. STELLAR ASTROPHYSICS (5)  
PR: AST 202 or C.I., MTH 305. The physical characteristics of stars, their measurement, and their distribution. Analysis of stellar radiation. Double stars, associations, clusters, galaxies.

AST 481. UNDERGRADUATE RESEARCH (1-6)  
PR: Senior or advanced junior standing and CI. Participation in professional research with a view to publication of results.

AST 491. ASTRONOMY SEMINAR (1)  
PR: Senior or advanced junior standing and CI. May be repeated twice.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

AST 521. INTRODUCTION TO CELESTIAL MECHANICS (5)  
PR: MTH 305 and some knowledge of differential equations, or CI. The two-body problem, artificial satellites, elements of perturbation theory.

AST 522. BINARY STARS (4)  
PR: AST 202 or C.I., MTH 305. Principles used to find the properties of astrometric, eclipsing, spectroscopic and visual binaries.

AST 533. STELLAR CONSTITUTION AND EVOLUTION (4)  

AST 538. INTRODUCTION TO RADIO ASTRONOMY (4)  

AST 583. SELECTED TOPICS IN ASTRONOMY (1-6)  
PR: Senior or advanced junior standing and CI. Intensive coverage of special topics to suit needs of advanced students.
FOR GRADUATE STUDENTS ONLY

AST 611. POSITIONAL ASTRONOMY (6)
PR: AST 413 and CC. The accurate determination of relative and absolute star positions and related problems.

AST 621. CELESTIAL MECHANICS (6)
PR: AST 521 and CC. Dynamics of the planetary system, space flight, theory of artificial satellites.

AST 631. STELLAR ATMOSPHERES (4)

AST 661. PHOTOMETRY (4)
PR: AST 202 or C.I., MTH 305. Theoretical, observational and instrumental concepts required in astronomical photometry.

AST 663. STATISTICAL REDUCTION OF OBSERVATIONS (6)
PR: MTH 323, 445, or equivalents and CC. The theory of statistical adjustments (least squares) and applications.

AST 681. GRADUATE RESEARCH (1-9)
PR: and CC.

AST 683. SELECTED TOPICS IN ASTRONOMY (1-6)
PR: and CC.

AST 691. GRADUATE SEMINAR (2)
and CC.

AST 699. MASTER'S THESIS (1-9)
and CC.

BASIC STUDIES

Faculty: American Idea: Warner, chairman; P. Adams, Arnade, Bosserman, Obermeyer, Reilly, Robertson, W. A. Smith, Stevenson.


Biological Science: Ray, chairman; Latina, Maw, Nelson, G. Robinson, Sumner, Tipton, Wagner.


Functional Foreign Languages: W. Hunter, chairman; Arzybushev, de la Menardiere, Gleaves, Glenisson, Grothman, Milani, Neugarda, Payas, Price, Sparks, Tatum, Wall, Weiss.


CBS 100. ENGLISH AS A SECOND LANGUAGE–COMPOSITION (3)
Practice and drill in basic English sentence patterns; emphasis is on writing, punctuation, vocabulary, and idiom.
CBS 101-102. FUNCTIONAL ENGLISH (4,4)
Instruction and practice in the skills of writing, reading, and listening. CBS 101 is prerequisite to CBS 102.

CBS 109-110. FUNCTIONAL MATHEMATICS (5,5)
Designed as a terminal course for general cultural purposes, as a foundation for further study of mathematics and science, and as a preparatory course for prospective elementary school teachers.

CBS 111-128, CBS 211-225. FUNCTIONAL FOREIGN LANGUAGES (3,3,3)
FIRST YEAR (I)  SECOND YEAR (II)
CBS 111-112-113  FRENCH  CBS 211-212-213
CBS 114-115-116  GERMAN  CBS 214-215-216
CBS 117-118-119  RUSSIAN  CBS 217-218-219
CBS 120-121-122  SPANISH  CBS 220-221-222
CBS 123-124-125  ITALIAN  CBS 223-224-225
CBS 126-127-128  PORTUGUESE

CBS 111 to 128. FUNCTIONAL FOREIGN LANGUAGES I (3,3,3)
Initiate development of speaking, understanding, reading, and writing of the foreign language at the elementary level together with a study of the foreign culture.

CBS 211 to 225. FUNCTIONAL FOREIGN LANGUAGES II (3,3,3)
Continue development of language skills at the intermediate level, including grammatical framework of the language and a comprehensive study of the foreign culture.

CBS 201-202-203. BEHAVIORAL SCIENCE (3,3,3)
Draws on information from behavioral sciences (human biology, psychology, anthropology, sociology, and philosophy) to demonstrate how human behavior develops and means by which personal, social, and ethical problems are dealt with. The third quarter will deal with special topics selected for study in depth by the student.

CBS 205-206-207. PROBLEMS IN BIOLOGICAL SCIENCE (3,3,3)
The use of information and principles from botany, zoology and physiology to teach students the basic operations of biological systems and the application of critical thinking to scientific problems.

CBS 208-209-210. EXPLORATIONS IN PHYSICAL SCIENCE (3,3,3)
The development of great scientific ideas, their historical and contemporary significance. Selected topics of astronomy, chemistry, earth science, physics, and philosophy of science—approached via textbook and popular readings. lec-lab-disc.

CBS 283. SELECTED TOPICS IN BASIC STUDIES (1-5)
PR: CI. The subject matter covered in each topic will depend upon the interest of the faculty member. Some may be experimental courses in Basic Studies; others may be offered under the direction of a visiting faculty member.

CBS 301-302-303-304. THE AMERICAN IDEA (3,3,2,1)
Uses history, political science, sociology and economics to focus on major ideas characterizing American society, on our relations with other nations, and on contemporary, domestic and international problems.

CBS 305-306-307-308. THE HUMANITIES (3,3,3,3)
PR: CBS 101-102 and sophomore standing. Analysis of works in the visual arts, music, theatre, film, literature, and philosophy. Workshops for creative experience.

CBS 311-312-313. HUMANITIES AND HUMANE VALUES (3,3,3)
PR: CBS requirement in humanities or CI. Masterpieces of music, visual arts, theatre, literature, and philosophy in varying cultural and historical situations.

CBS 395. OVERSEAS STUDY (1-9)
A program of individual or group research in a foreign country. Selection of the student, his preparation for the study, and subsequent evaluation to be supervised by a faculty committee.
CBS 400. COOPERATIVE EDUCATION RESEARCH REPORT (1-5)
PR: COE 171. A course designed specifically for Cooperative Education students in which the student pursues a research project dealing with his Cooperative Education assignment and his major area of professional interest. (This course may be used with any other 3-letter prefix if approved by the chairman and dean concerned.)

CBS 401. SENIOR SEMINAR: FREEDOM AND RESPONSIBILITY (3)
Required of all seniors. Contemporary issues affecting social and personal values. Visiting lecturers, readings and discussions interrelating the behavioral natural and social sciences and the humanities. Designed to focus the university education upon contemporary problems.

CBS 403-404. THE UNIVERSE OF MAN (3,3)
A search for the universals of human life today; the nature of man, the world community, human needs and values, available instruments of science and technology, and the limiting facts and forces.

CBS 405-406-407. BEHAVIORAL SCIENCE (3,3,3)
A comprehensive analysis and evaluation of man's behavior. Emphasis on understanding of mechanisms involved in individual and social behavior, along with consideration of social and ethical problems related to means for controlling behavior. Laboratory experience will be provided on special research topics.

CBS 409-410-411. SCIENCE AND HUMAN LIFE (3,3,3)
The three phases of the course will involve the role of science in society; the quantitative factors operating within science; and the conflicting factors operating between science and other fields of knowledge.

CBS 460. CLASSICS OF THE SILENT FILM (4)
Examples of the silent film studied from social, intellectual, historical, and artistic points of view.

CBS 483. SELECTED TOPICS IN BASIC STUDIES (1-5)
PR: CI. The subject matter covered in each topic will depend upon the interest of the faculty member. Some may be experimental courses in Basic Studies; others may be offered under the direction of a visiting faculty member.

BIOLOGY (Interdisciplinary)
(See also Botany and Zoology)

Offered by the Departments of Botany & Bacteriology and Zoology. For faculty and additional offerings see respective departments.

BIO 201.* FUNDAMENTALS OF BIOLOGY I (4)
A phylogenetic survey of the major animal groups and organ systems accompanied by dissection of selected types. lec-lab.

BIO 202.* FUNDAMENTALS OF BIOLOGY II (4)
An introduction to plant science; survey of plant groups; fundamentals of plant biology. lec-lab.

BIO 203.* FUNDAMENTALS OF BIOLOGY III (4)
Emphasis on fundamental properties of both plant and animal life. lec-lab.

BIO 315.* MICROTECHNIQUE (3)
PR: BIO 201-203. Theory and practice of tissue fixation, imbedding, sectioning and staining; chromosomal squash preparations; nuclear isolation techniques photomicrography, lec-lab.

BIO 331. GENERAL GENETICS I (3)
PR: BIO 201-203. Principles of Mendelian "transmission" and evolutionary genetics. lec-lab.

* The purchase of a coupon book to cover breakage is required for these courses.
BIO 332. GENERAL GENETICS II (3)
PR: BIO 331. Introduction to the study of gene action. lec-lab.

BIO 345. MAN'S BIOLOGICAL ENVIRONMENT (4)
PR: BIO 201-203. A biological consideration of man's deteriorating relationship with his environment. Emphasis on pollution, pesticides, and population.

BIO 351*. INTRODUCTION TO MICROBIOLOGY (5)
PR: BIO 201-203. Introduction to the biology of microorganisms; structure and physiology of bacteria, algae, viruses, rickettsiae and protozoa; basic lab; methods in bacteriology. lec-lab.

BIO 421. CELL BIOLOGY I (4)
PR: BIO 201-203, CHM 331-333 or equivalent. An integrated approach to the structure and function of the cell. Biochemistry of cell constituents, relation of the cell to its environment, cellular energy conversion systems. lec-lab.

BIO 422. CELL BIOLOGY II (4)

BIO 445. PRINCIPLES OF ECOLOGY (3)
PR: BIO 201-203. Organisms and their relationship to the environment, biogeography.

BIO 485. RESEARCH METHODS IN BIOLOGY I (2)
PR: CI. A laboratory course for advanced students to become acquainted with contemporary biological research instrumentation and techniques.

BIO 486. RESEARCH METHODS IN BIOLOGY II (2)
PR: CI. See Bio 485.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

BIO 565. ORGANIC EVOLUTION (4)
PR: BIO 331 or CI. An introduction to modern evolutionary theory. Lectures on population genetics, adaptations, speciation theory, phylogeny, human evolution, and related areas.

FOR GRADUATE STUDENTS ONLY

BIO 601. HISTORY OF BIOLOGY (3)
PR: CI. The historical development of biology with emphasis on the origin of important theories and principles.

BIO 645. MAN VERSUS HIS ENVIRONMENT (4)
PR: CI. Current and future biological problems facing mankind. Topics include pollution, biocides, the population explosion, eugenics, and food for the future.

BIO 799. PH.D. DISSERTATION (1-12)
PR: CI. May be repeated to a maximum of 12 credits.

BOTANY AND BACTERIOLOGY
(See also Interdisciplinary Biology)

Faculty: Long, chairman; Alvarez, Betz, Dawes, Eilers, Lakela, Mansell, McClung, Humm (adj.), Wagner (adj.).

BOT 311. SYSTEMATIC BOTANY (5)
PR: BIO 201-203 or CI. Identification and classification of the more interesting

* The purchase of a coupon book to cover expendable items is required for these courses.
vascular plants of Florida; angiosperm evolution; principles of taxonomy. Conducted largely in the field.

**BOT 314. FIELD BOTANY (3)**
PR: BIO 201-203 or CI. Identification and classification of native and naturalized flowering plants of Florida including historical, climatic and floristic aspects of plant communities. Conducted largely in the field. lec-lab.

**BOT 371. ECONOMIC BOTANY (3) for non-specialists**
PR: Junior or Senior standing or CI. The relation of plants to human history and contemporary life. Botanical and economic aspects of plants used as sources of foods, drugs, and other products of importance in everyday life. Origins of cultivated plants.

**BOT 417.® MYCOLOGY (5)**
PR: BIO 201-203. Taxonomy, morphology, and physiology of fungi with special emphasis on yeasts and molds; antibiosis; industrial fermentations. lec-lab.

**BOT 419. PLANT ANATOMY (5)**
PR: BIO 201-203. Comparative studies of tissue and organ systems of fossil and present-day vascular plants. Functional and phylogenetic aspects stressed. lec-lab.

**BOT 421.® PLANT PHYSIOLOGY (5)**
PR: BIO 201-203, CHM 331-336 or CHM 303, or CI. Fundamental activities of plants; absorption, translocation, transpiration, metabolism, growth, and related phenomena. lec-lab.

**BOT 446. TERRESTRIAL PLANT ECOLOGY (4)**
PR: BIO 201-203, BIO 445 or CI. Distribution and nature of vegetation in relation to climatic, physiographic, edaphic and biotic factors; field investigations of subtropical Florida plant communities. lec-lab.

**BOT 447. MARINE BOTANY (5)**
PR: BIO 201-203, BIO 445 or CI. A field course in marine plants with emphasis on ecology and functional morphology. Field work will stress the ecological aspects of plants in a subtropical marine environment in Florida. lec-lab.

**BOT 451. APPLIED BACTERIOLOGY (5)**
PR: BIO 351. Bacteria, rickettsia, and viruses most important to man. Pathogenic bacteria; introduction to sanitary, industrial, soil and agricultural bacteriology.

**BOT 481. UNDERGRADUATE RESEARCH (1-6)**
PR: Senior standing and CI. Individual investigations with faculty supervision.

**BOT 491. SEMINAR IN BOTANY (1)**
PR: Senior or advanced junior standing and CI. May be repeated once.

**FOR SENIOR LEVEL AND GRADUATE STUDENTS**

**BOT 511. TAXONOMY OF FLOWERING PLANTS (4)**
PR: BOT 311 or CI. A phylogenetic study of Angiosperms; relationship of the principal orders and families, problems of nomenclature, identification of specimens, comparisons of recent systems of classification, dissection of representative flower types. Field trips and lab work, lec-lab.

**BOT 515. SUBCELLULAR CYTOLOGY (4)**
PR: BIO 422 or CI. Theory and fine structure of cells based on the information available from X-ray diffraction, bright field, phase birefringence light microscopy as well as electron diffraction and electron microscopy. The course will consist of three hours of lecture and one three-hour lab which will include demonstrations. lec-lab.

**BOT 517. PHYSIOLOGY OF THE FUNGI (5)**
PR: BOT 417, BIO 422 or CI. Differentiation, development, and genetics of the fungi. lec-lab.

*The purchase of a coupon book to cover breakage is required for these courses.*
BOT 518. MEDICAL MYCOLOGY (5)  
PR: BIO 351 or CI. A survey of the yeasts, molds and actinomycetes most likely to be encountered by the bacteriologists, with special emphasis on the forms pathogenic for man. lec-lab.

BOT 521. PHYSIOLOGY OF PLANT GROWTH AND DEVELOPMENT (3)  
PR: BOT 421, BIO 422 and CI. Morphogenesis and embryogenesis of higher plants. Emphasis on experimental approach to investigations of plant development. lec.

BOT 543. PHYCOLOGY (5)  
PR: BOT 447 or equivalent. A detailed survey of the algae emphasizing both taxonomy and morphology of fresh and marine water forms; field and laboratory investigations including individual projects. lec-lab.

BOT 551. BACTERIAL PHYSIOLOGY (5)  
PR: BIO 351 or equivalent, CHM 331-336, or CI. Bacterial structure, growth, death, metabolism, and genetic systems. Laboratory emphasis on quantitative and chemical methods for study of bacteria. lec-lab.

BOT 553. DETERMINATIVE BACTERIOLOGY (5)  
PR: BIO 351 or equivalent. Survey of bacterial classification; detailed examination of bacteria important to man in agriculture, in industry, and as pathogens. lec-lab.

BOT 557. VIROLOGY (5)  
PR: BIO 351 or equivalent and CI. 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. lec-lab.

BOT 583. SELECTED TOPICS IN BOTANY AND BACTERIOLOGY (1-4)  
PR: CC. Each topic is a course in directed study under supervision of a faculty member.

FOR GRADUATE STUDENTS ONLY

BOT 610. CYTOCHEMISTRY (4)  
PR: BIO 421, BIO 315 and CI. Theory and practice of microscopic and quantitative cyto-histochemistry. Intracellular localization methods for total proteins, nucleic acids, insoluble polysaccharides and enzymes. Discussions and demonstrations of optical quantitative methods based on polarizing and interference microscopy, and microspectrophotometry. 3 hours lec and 3 hours lab. lec-lab.

BOT 611. BIOSYSTEMATICS (4)  
PR: BOT 311 or equivalent. Application of cytology, ecology, genetics, biochemistry, and morphological analyses to the study of evolution and classification of species of higher plants.

BOT 615. ULTRASTRUCTURE TECHNIQUES IN ELECTRON MICROSCOPY (6)  
PR: BIO 201-203, BOT 515 or CI. Discussion of theory and techniques in electron microscopy. Emphasis on preparation techniques, optics, and use of the electron microscope. lec-lab.

BOT 643. ADVANCED PHYCOLOGY (4)  
PR: BOT 543 or CI. A review of contemporary studies in the ecology, physiology, cytology, and morphology of algae. The course will consist of three hours of lecture and one laboratory. Lecture will be a review of the recent phycological literature with a laboratory for individual student projects. Field work will be required. lec-lab.

BOT 651. PLANT METABOLISM (3:2)  
PR: BIO 351, BIO 422, BOT 421, CHE 336 or CI. A study of plant metabolism during germination and development with emphasis on respiration, photosynthesis, protein synthesis, pigments, and enzymes. lec-lab.

* The purchase of a coupon book to cover breakage is required for these courses.
CHEMISTRY 151

BOT 654. BACTERIAL GENETICS (3)
PR: BIO 551, BIO 532, BOT 551 or CI. A survey of the recombinational systems found among the bacteria and bacterial viruses with emphasis on the molecular mechanisms of gene transfer, replication and expression and on the significance of these systems for our understanding of cellular functions. lec-3 hrs per week.

BOT 655. IMMUNOLOGY (5)
PR: BIO 351 or equivalent, CHM 331-336 or equivalent. Discussion of the basic immune reaction, nature of antigenicity; basic immunological techniques and their use in biological research and the medical sciences.

BOT 681. GRADUATE RESEARCH (1-9)
PR: CI.

BOT 683. SELECTED TOPICS IN BOTANY AND IN BACTERIOLOGY (1-4)
PR: CC.

BOT 691. GRADUATE SEMINAR (1)

BOT 699. MASTER'S THESIS (4-9)
PR: CI.

CHEMISTRY

Faculty: Maybury, chairman; Ashford, Binford, Braman, Caughey, Cory, J. Davis, R. Davis, J. Fernandez, Jurch, D. Martin, McCoy, Monley, Olsen, T. Owen, Solomons, Stevens, Wenzinger, Whitaker, Worrell.

CHM 211. GENERAL CHEMISTRY I (4)
Fundamentals of chemistry; gas laws, mass and energy relationships in chemical changes, chemical equilibrium, atomic and molecular structure, lec-lab and discussion.

CHM 212. GENERAL CHEMISTRY II (4)
PR: CHM 211 or equivalent. Continuation of General Chemistry, lec-lab and discussion.

CHM 213. GENERAL CHEMISTRY III (4)
PR: CHM 212 or equivalent. Continuation of General Chemistry, lec-lab and discussion.

CHM 301. ELEMENTARY INORGANIC CHEMISTRY (4)
PR: CHM 213 or equivalent. Fundamental inorganic chemistry principles. One-quarter course for non-chemistry majors. lec-lab.

CHM 305. ELEMENTARY PHYSICAL CHEMISTRY (5)
PR: CHM 213, 321. Fundamental physical chemistry principles. One-quarter course for non-chemistry majors. lec-lab.

CHM 321. ELEMENTARY ANALYTICAL CHEMISTRY (4)
PR: CHM 213. Fundamentals of gravimetric and volumetric analysis. lec-lab.

CHM 322. ANALYTICAL CHEMISTRY (4)
PR: CHM 321. Potentiometry, spectrophotometry, chromatography, and ion exchange. lec-lab.

CHM 331-332. ORGANIC CHEMISTRY I (3:1)
PR: CHM 213. Fundamental principles of organic chemistry and lab. Must be taken concurrently.

CHM 333-334. ORGANIC CHEMISTRY II (3:1)
PR: CHM 331-332 or equivalent. Continuation of Organic Chemistry. Lecture and lab must be taken concurrently.

CHM 335-336. ORGANIC CHEMISTRY III (3:1)
PR: CHM 233-334 or equivalent. Continuation of Organic Chemistry. Lecture and lab must be taken concurrently.

* The purchase of a coupon book to cover breakage is required for these courses.
CHM 351. INTRODUCTORY BIOCHEMISTRY (4)
PR: CHM 333. Introduction to the chemistry and intermediary metabolism of biologically important substances. Lecture.

CHM 371. MODERN CHEMICAL SCIENCE (4)
PR: Jr. or Sr. standing. And CI. An introduction to some of the major problems in chemistry, its relation to other sciences, and its relevance to contemporary culture. Not open to chemistry majors.

CHM 433. QUALITATIVE ORGANIC ANALYSIS (4)
PR: CHM 333. Identification of organic compounds by functional group reactions and physical properties. Lecture.

CHM 441. PHYSICAL CHEMISTRY I (4)
PR: CHM 321 and MTH 304. CR. MTH 305, PH 223 or 207. Thermodynamics, the states of matter, solutions. Lecture

CHM 442. PHYSICAL CHEMISTRY II (4)

CHM 443. PHYSICAL CHEMISTRY III (4)
PR: CHM 442. Introduction to quantum mechanics and statistical thermodynamics. Lecture.

CHM 444.* PHYSICAL CHEMISTRY LABORATORY (3)
PR: One term of physical chemistry. CR: The second term of physical chemistry. 1 hour of lecture, 8 hours of lab weekly.

CHM 481.* UNDERGRADUATE RESEARCH (1-6)
PR: CI.

CHM 483. SELECTED TOPICS IN CHEMISTRY (1-6)
PR: CI. The course content will depend on the interest of faculty members and student demand.

CHM 491. CHEMISTRY SEMINAR (2)
PR: Senior standing.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

CHM 511. ADVANCED INORGANIC CHEMISTRY (4)
PR: CHM 441 or CI. An advanced theoretical treatment of inorganic compounds. Lecture.

CHM 521.* INSTRUMENTAL ANALYSIS (4)

CHM 531.* ADVANCED SYNTHETIC CHEMISTRY (4)
PR: CHM 333. A study of synthetic techniques from both the practical and the theoretical points of view. Lecture.

CHM 551. BIOCHEMISTRY I (4)
PR: CHM 335, 6. The chemistry and intermediary metabolism of biologically important substances, including carbohydrates, proteins, enzymes, vitamins, and metabolic intermediates. Recommended for chemistry and biology majors. Lecture.

CHM 552. BIOCHEMISTRY II (4)

CHM 553. BIOCHEMISTRY III (4)
PR: CHM 552. Continuation of Biochemistry lecture.

CHM 554.* TECHNIQUES IN BIOCHEMISTRY (2)
PR: CHM 551. Biochemistry laboratory with emphasis on modern techniques for use in biochemical research.

CHM 583. SELECTED TOPICS IN CHEMISTRY (1-6)
PR: CC. The following courses are representatives of those that are taught

* The purchase of a coupon book to cover breakage is required for these courses.
under this title: Natural Products, Stereochemistry, Reactive Intermediates, Photochemistry, Instrumental Electronics, Thermodynamics, Advanced Lab Techniques, Heterocyclic Chemistry, etc.

FOR GRADUATE STUDENTS ONLY

CHM 611. STRUCTURAL INORGANIC CHEMISTRY (4)
PR: CHM 511 or CI. Modern theories of bonding and structure of inorganic compounds, including coordination theory, stereochemistry, solution equilibria, kinetics, mechanisms of reactions, and use of physical and chemical methods. Lecture.

CHM 613. CHEMISTRY OF THE LESS FAMILIAR ELEMENTS (4)
PR: CI. An integrated treatment of the conceptual and factual aspects of the traditionally less familiar elements, including noble-gas elements, unfamiliar non-metals, alkali and alkaline-earth metals, and the transition elements. Lecture.

CHM 621. ADVANCED ANALYTICAL CHEMISTRY (4)
PR: CI. A study of complete analytical process, including sample handling, separations, the analysis step, and statistical interpretation of data. Emphasis placed on separations and statistics. Lecture.

CHM 623. ELECTROCHEMISTRY (4)
PR: CHM 521. Theory and applications of modern electrochemical techniques, including polarography, amperometry, potentiometry, coulometry, and conductometry. Lecture.

CHM 625. ADVANCED ANALYTICAL TOPICS (4)
PR: CI. Selected topics in analytical chemistry. Offerings include radiochemistry (emphasizing radiotracers in research and analysis), chemical spectroscopy, (including both emission and absorption), and quantitative organic analysis. (Lecture; some topics may have lab.)

CHM 631. ADVANCED ORGANIC CHEMISTRY I (3)
PR: CI. A survey of theoretical and synthetic organic chemistry. Problems of structure and reactivity will be considered. Lecture.

CHM 632. ADVANCED ORGANIC CHEMISTRY II (3)

CHM 633. ADVANCED ORGANIC CHEMISTRY III (3)

CHM 634. ADVANCED ORGANIC CHEMISTRY IV (3)
CR: CHM 632. A study of organic reactions as exemplified in synthesis, degradation and structure proof. The emphasis will vary from year to year. Lecture.

CHM 641. STATISTICAL THERMODYNAMICS (4)
PR: CI. Application of statistical mechanics to thermodynamics, the relation of molecular structure to thermodynamic properties. Lecture.

CHM 643. QUANTUM CHEMISTRY I (4)

CHM 645. QUANTUM CHEMISTRY II (4)
PR: CHM 643. Applications of quantum mechanics to problems in chemistry; molecular structure and spectra. Lecture.

CHM 651. ADVANCED BIOCHEMISTRY I ENZYMES (4)
PR: CHM 552. A study of biochemical systems with emphasis on enzymes. lec.

CHM 652. ADVANCED BIOCHEMISTRY II PROTEIN AND NUCLEIC ACIDS (4)
PR: CHM 552. A study of biochemical systems with emphasis on proteins and nucleic acids, lec.

CHM 653. ADVANCED BIOCHEMISTRY III. BIOORGANIC MECHANISMS
PR: CHM 552. A study of biochemical systems with emphasis on mechanisms of biological reactions, lec.

CHM 654. ADVANCED BIOCHEMISTRY IV. BIOPHYSICAL CHEMISTRY (4)
PR: CHM 552. A study of biochemical systems with emphasis on physical methods of experimentation and interpretation. lec.

CHM 681. GRADUATE RESEARCH (1-9)
PR: CC. Directed study along lines of the student’s research, including participation in regular seminars. May be repeated.

CHM 683. SELECTED TOPICS IN CHEMISTRY (1-6)
PR: CC. The following titles are representative of those that are taught under this title: Symmetry and Group Theory, Photochemical Kinetics, Quantum Mechanical Calculations, Advanced Chemical Thermodynamics, Reaction Mechanisms, Advanced Instrumentation, Separations and Characterization, Spectroscopy, etc.

CHM 691. GRADUATE SEMINAR IN CHEMISTRY (2)
CHM 699. THESIS (1-9)

CLASSICS AND ANCIENT STUDIES

Faculty: Gessman, chairman; Henley.

CLS 101-102-103. ELEMENTARY LATIN (3,3,3)
Elements of grammar, practice in translation from and into Latin, reading of selections from simple Latin texts.

CLS 201. INTERMEDIATE LATIN I (3)
PR: CLS 103 or equiv.; CR: two-hour per week grammar workshop (no credit). Selections from Cicero’s speeches and systematic exercises in intermediate grammar.

CLS 202. INTERMEDIATE LATIN II (3)
PR: CLS 201 or equiv. Selections from the letters of Cicero and Pliny the Younger. (Alternate years.)

CLS 203. INTERMEDIATE LATIN III (3)
PR: CLS 201 or equiv. Selections from Ovid read and interpreted. (Alternate years.)

CLS 301. LATIN HISTORIANS (3)
PR: CLS 201 or equiv. Reading and interpretation of selected passages from the works of Sallust, Livy, and Tacitus in the original and of portions of their works in English translation. (Alternate years.)

CLS 302. LATIN LYRICS (3)
PR: CLS 201 or equiv. Reading and interpretation of selected poems by Roman lyricists, especially Catull and Horace. Introduction into Latin metrics. (Alternate years.)

CLS 303. LATIN EPIC (3)
PR: CLS 201 or equiv. Reading and interpretation of selected passages from Vergil’s Aeneid in the original and of the entire work in English translation. Comparison with Greek epic. (Alternate years.)

CLS 321. ANCIENT CIVILIZATIONS (5)
Study, in a thematic historical framework, of the character, ideas and cultural achievements of the peoples of the Ancient Near East and Mediterranean and their relevance for modern Western civilization, with special emphasis on the Hebrews, Greeks and Romans.

CLS 331-332-333. BASIC GREEK (3, 3, 3)
PR: Junior or senior standing or a minimum of two years of Latin or another highly inflected language (e.g., German, Russian, Modern Greek) or Cl. Ac-