Accent on Learning

GENERAL CATALOG
of the
UNIVERSITY OF SOUTH FLORIDA
1971-72

Vol. 13, No. 3

USF BULLETIN
March, 1971

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No person shall, on the basis of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity at the University of South Florida. The University is an affirmative action Equal Opportunity Employer.
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  
Office of Admissions

Conferences and workshops (non-credit)  
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

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  
Career Planning & Placement Service

Transcripts and records  
Office of Records & Registration

General Information  
Office of Information Services

Registration Information  
Office of Records & Registration

University of South Florida  
Tampa, Florida 33620  
University Telephone: 974-2011  
(Area Code 813)

University of South Florida at St. Petersburg  
830 First Street South  
St. Petersburg, Florida 33701  
Phone: (813) 898-7411
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The University of South Florida reserves the right to withdraw or change the announcements and information included in this Bulletin without notice.
ACADEMIC

QUARTER IV, 1970-71

Note: Dates apply to full 9-week term. See quarterly Schedule of Classes for appropriate dates for 3- and 6-week sessions.

May 12, Wednesday  Last day to apply for admission or re-admission
June 14, Monday  Registration by appointment
June 14, Monday  Last day to cancel and receive full refund of registration fees (see section on “REFUNDS”)
June 15, Tuesday  Classes begin
June 17, Thursday  Last day to withdraw and/or drop and receive partial refund of registration fees (see section on “REFUNDS”)
July 5, Monday  Independence Day Holiday
July 6, Tuesday  Last day to remove an “X” grade. Official forms must be in Registrar’s Office by this date
July 6, Tuesday  Last day to apply for a degree to be earned at the end of Quarter IV, 1970-71
July 16, Friday  Last day to drop courses without penalty
July 23, Friday  Last day to withdraw without penalty
August 13, Friday  End of Quarter IV

QUARTER I, 1971-72

August 20, Friday  Last day to apply for admission or re-admission
September 12, Sunday  First day for orientation
September 14,15, 16  Registration by appointment
Tues., Wed., Thurs.
September 19, Sunday
September 20, Monday  Last day to cancel and receive full refund of registration fees (see section on “Refunds”)
September 24, Friday  Classes begin
September 24, Friday  Last day to add courses
October 4, Monday  Last day to withdraw and/or drop and receive full refund of registration fees
October 4, Monday  Last day for late registration (see late registration fee)
October 8, Friday  Last day to register for Continuing Education
October 29, Friday  Last day for Continuing Education Refund
November 12, Friday  Last day to apply for a degree to be earned at the end of Quarter I, 1971-72
November 25-26, Thurs., Fri.  Last day to drop courses without penalty
December 3, Friday  Last day to withdraw without penalty
Thanksgiving Day Holiday
End of Quarter I
## CALENDAR

### QUARTER II, 1971-72

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>December 6, Monday</td>
<td>Last day to apply for admission or re-admission</td>
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<td>January 3, 4, Mon., Tues.</td>
<td>Registration by appointment</td>
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<tr>
<td>January 5, Wednesday</td>
<td>Last day to cancel and receive full refund of registration fees</td>
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<td>(see section on &quot;Refunds&quot;)</td>
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<td>Classes begin</td>
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<td>January 20, Thursday</td>
<td>Last day for Continuing Education Refund</td>
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<tr>
<td>January 26, Wednesday</td>
<td>Last day to apply for a degree to be earned at the end of</td>
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<td>Quarter II, 1971-72</td>
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<td>February 7, Monday</td>
<td>Gasparilla Day Holiday</td>
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<td>February 16, Wednesday</td>
<td>Last day to drop courses without penalty</td>
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<td>February 25, Friday</td>
<td>Last day to withdraw without penalty</td>
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<td>March 17, Friday</td>
<td>End of Quarter II</td>
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<td>February 29, Tuesday</td>
<td>Last day to apply for admission or re-admission</td>
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<td>March 27, 28, Mon., Tues.</td>
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<td>Quarter III, 1971-72</td>
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<td>May 10, Wednesday</td>
<td>Last day to drop courses without penalty</td>
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<tr>
<td>May 17, Wednesday</td>
<td>Last day to withdraw without penalty</td>
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<tr>
<td>June 6, Tuesday</td>
<td>End of Quarter III</td>
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<tr>
<td>June 11, Sunday</td>
<td>Commencement Convocation</td>
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QUARTER IV, 1971-72

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May 12, Friday  
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June 13, Tuesday  
June 16, Friday  
June 19, Monday  
June 19, Monday  
June 19, Monday  
June 27, Tuesday  
July 3, Monday  
July 4, Tuesday  
July 14, Friday  
July 21, Friday  
August 11, Friday

Last day to apply for admission or re-admission
Registration by appointment
Classes begin
Last day to cancel and receive full refund of registration fees (see section on “Refunds”)
Last day to add courses
Last day to withdraw and/or drop and receive full refund of registration fees
Last day for late registration (see late registration fee)
Last day to register for Continuing Education
Last day for Continuing Education Refund
Last day to apply for a degree to be earned at the end of Quarter IV, 1971-72
Independence Day Holiday
Last day to drop courses without penalty
End of Quarter IV

COLLEGE OF MEDICINE
Academic Calendar 1971-72

QUARTER I, 1971-72

September 8, Wednesday
September 13, Monday
November 25, 26, Thurs., Fri.
December 17, Friday

Registration
Classes Begin
Thanksgiving Holiday
End of Quarter I

QUARTER II, 1971-72

January 3, Monday
February 7, Monday
March 17, Friday

Registration, Classes begin
Gasparilla Day Holiday
End of Quarter II

QUARTER III, 1971-72

March 27, Monday
June 9, Friday

Registration, Classes begin
End of Quarter III
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, Florida Technological University near Orlando, and two universities currently under development: the University of North Florida in Jacksonville, and Florida International University in Miami. In addition, there are 27 public junior colleges in population centers throughout the state.

More than 10,000 students had graduated from the University of South Florida by the end of 1970. Enrollment for the fall of 1970 reached 17,900, and the student body is expected to exceed 30,000 before 1980.

The University was fully accredited in 1965 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 a million and a half residents within commuting distance. 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 32 major academic and residence buildings, is currently valued at more than $60 million. The buildings are of similar, modern architectural design and all are completely air conditioned. Major buildings now in use are:

John & Grace Allen Administration Building, housing administrative and business offices and a number of special service units of the institution (named for the University's first president, Dr. John S. Allen, and his wife);

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;

Business Administration Building, housing the dean and faculty of the college, classrooms, and a 430-seat teaching auditorium;

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;

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 $1000,000 photo-telescope and several smaller telescopes;

Science Center, completed in 1968, housing laboratories and research facilities for graduate students and faculty, the USF Computer Research Center and temporary quarters for the College of Medicine;

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;

Faculty Office Building, completed in 1969, is primarily a faculty office building, with facilities for faculty and student conferences.

The Language-Literature Building, to be completed in September, 1971 will house the Division of Language and Literature and includes 45 classrooms, 6 seminar rooms, faculty offices, and a 500-seat auditorium.

Many additional programs are operated by the University's Center for Continuing Education in 12 west central Florida counties. 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 for Continuing Education maintains a branch office at 1015 S. Tamiami Trail in Sarasota, and operates a century-old-mansion—Chinsegut Hill, near Brooksville—as an education retreat for seminars and meetings.

St. Petersburg Campus

The University of South Florida at St. Petersburg 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 at the St. Petersburg campus 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 five of the University’s 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 six 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 metropolitan 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.

The Institute offers a program leading to the master of arts degree in marine science. 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 University of South Florida at St. Petersburg 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 seven colleges, with supporting services designed for this basic pattern. The seven 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 finance; Education, which provides teacher training in all major teaching fields; Engineering, organized around systems design, research, and operation; Liberal Arts, which offers programs in the areas of fine arts, natural sciences, social sciences, and languages and literature; Medicine, with programs leading to the M.D.; and Nursing, which offers a four-year program leading to the B.S. degree.

Bachelor's degrees are offered in many fields by all the University’s colleges. Master's degrees are offered in more than 50 areas of business, education, engineering, and liberal arts.

The University's first Ph.D. program, in Biology with emphasis on Marine Biology, was established in 1968. Ph.D. programs in Chemistry and Education began in 1969, and programs in English, Mathematics, and Psychology were authorized in 1971.

The University's teaching and research faculty, numbering more than 850, 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 administrative affairs. The vice presidents 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, advice 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 Foundation

The University of South Florida Foundation is a non-profit corporation functioning primarily to provide supplemental funds for the University. These contributions are used for student aid, cultural events, library, research, guest lectures 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.

Alumni Association

The University of South Florida Alumni Association was organized in December, 1963, upon graduation of the first class. The Association’s activities are conducted by officers of the Association with the cooperation of the Office of Alumni Services. An alumni newsletter, The Golden Horn, is published bimonthly.
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 re-
search 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 $60 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 is continuing on its course toward becoming a distinguished university.
ADMISSION

The University of South Florida requires definite ability and competence 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.

The Director of Admissions will admit students who meet the formal requirements of the University for admission and can be expected to do successful academic work. He will suggest other possibilities to those who do not.

The University may refuse admission to a student whose record shows previous misconduct not in the best interest of citizens of the University community.

In accepting students for admission, the University does not discriminate on the basis of race, color, or national origin.

How to Apply

You should request an application indicating whether you need Freshman (no previous college), Transfer, or Graduate application papers. Make your request to:

Office of Admissions
University of South Florida
Tampa, Florida 33620

Students interested in applying for admission to the College of Medicine may obtain application forms from the Office of Student Affairs, College of Medicine.

You are advised to make your request for papers early. Application papers may be submitted as early as 12 months prior to anticipated enrollment, but must be received prior to the deadline in the academic calendar. Please note: All applicants must enter their Social Security number on the application. All application forms will be returned to the applicant if they do not include Social Security number and the $15.00 nonrefundable application fee.

All academic records must be mailed to the Office 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 and high school equivalency diploma 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 Educational Testing Service, Princeton, N.J.). The student has the responsibility of requesting the records to be mailed to the University from each school attended.

A student who is accepted and does not enroll must notify us within 30
days 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.

Requirements for Admission

FRESHMAN — Graduate of Florida Secondary Schools
1. Official transcript sent directly from secondary school indicating graduation.
2. Favorable recommendation from secondary school.
3. An overall “C” average in academic subjects.
4. A minimum score of 300 on the Florida Twelfth Grade Test.

FRESHMAN—Graduate of Out-of-State Secondary Schools
1. Official transcripts sent directly from secondary school indicating graduation.
2. Favorable recommendation from secondary school.
3. Grades placing them in upper 40 per cent of their graduating class.
4. A minimum total score of 900 on the Scholastic Aptitude Test with no less than 450 on the Verbal portion or score of 21 on the A.C.T.

TRANSFER
1. Official transcript from each institution previously attended.
2. An overall academic average of “C” on all work attempted.
3. Eligible to re-enter institution last attended.
4. Applicant must have completed Student Information Form sent from the last institution attended directly to the Dean of Students at the University of South Florida.
5. A satisfactory secondary school record and test scores are required for those students who have attempted less than 90 quarter hours of college work. See page 16, EVALUATION OF TRANSFERRED CRED-ITS (undergraduate).

TRANSIENT
A transient student is one interested in enrolling at the University of South Florida for only one term before returning to his parent institution.
1. Statement indicating good standing from the parent institution and their approval of course to be taken.
2. Applicant must have a completed Student Information Form sent from the last institution attended directly to the Dean of Students at the University of South Florida.

NON-DEGREE Undergraduate, 21 years or older
1. When no previous college work has been taken, a secondary school record indicating overall “C” average and graduation must be submitted.
2. Students with previous college must submit a statement of good standing or satisfactory transcript and have a Student Information Form sent from the last institution attended directly to the Dean of Students at the University of South Florida.

GRADUATE—See Graduate Section, Page 147.
READMISSION

1. Any student who has not been enrolled at the University for two quarters immediately preceding the quarter for which he wishes to re-enter will need to secure a special application for students in this category from the Office of Records & Registration (ADM 264).

2. Students who were in attendance at the university the two terms immediately preceding registration are considered Continuing Students and will receive registration appointment cards. Students who were not in attendance the past two terms preceding registration should follow instructions in the University Class Schedule for Former Students Returning.

3. However, all former undergraduate students wishing to enter graduate school for the first time, and those who have earned a baccalaureate degree since last in attendance at the University of South Florida, will need to file a graduate application prior to the deadline listed in the catalog. A fee is not required.

4. All Disqualified Students must petition the Academic Standards Committee for permission to re-enroll at the University of South Florida.

EVENING CLASSES

The admission requirements and achievement levels in the day and evening courses are the same. Any student accepted to the University may enroll in courses offered in the evening which are appropriate to his program.

EVALUATION OF TRANSFERRED CREDITS (Undergraduate)

1. Course evaluations are prepared after an application for admission is submitted, official transcripts are received, and applicant is cleared for admission.

2. Effective January, 1971, work in which a student has earned a grade of “D” or better may be transferred. This rule is not retroactive.

3. A transfer student from a junior college may satisfy the basic studies requirements of the University of South Florida by completing (before transfer) the general education program prescribed by that institution. Transcripts must certify graduation and the general education requirements as completed.

4. A maximum of 90 quarter hours of junior college work will transfer. Any prior work taken at a four year institution must be included in the 90 hours.

5. Credit will not be awarded for G.E.D. tests, for basic R.O.T.C., military science, nor for courses given credit without a grade.

6. Service school courses will be evaluated with reference to the recommendations of the American Council on Education when official credentials have been presented. Such recommendation, however, is not binding upon the University. No more than 22 quarter hours can be earned by military service credit.

7. A maximum of 45 quarter hours of extension, correspondence, military service and College Level Examination Program credits can be applied toward a degree.

COLLEGE LEVEL EXAMINATION PROGRAM

The University of South Florida will grant credit for the general examinations of the College Level Examination Program if the student scores at or above the 50th percentile of the national norm. See 7, above.
FOREIGN STUDENTS

For all foreign students, undergraduate and graduate, the following items are required:
1. Completed application must be received by the University of South Florida at least 6 months prior to expected date of enrollment.
2. A $15 nonrefundable fee must be included with the application.
3. A certificate of financial ability.
4. Two personal letters of recommendation.
5. A certificate indicating satisfactory scores on the Test of English as a Foreign Language. The student should request that Educational Testing Service send their scores directly to the Office of Admissions.

Foreign applicants must request all colleges attended to submit directly to the Office of Admissions at the University of South Florida, transcripts of all work attempted, certified and translated in English. For undergraduates the high school record must be included, certifying graduation and date and indicating an average of “C” or better. Graduate applicants must comply, in addition to the above, with requirements listed in the Graduate Section.

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.

John & Grace Allen Administration Building
REGISTRATION

UNIVERSITY OF SOUTH FLORIDA STUDENTS

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 published quarterly in the University Class Schedule.

Changes of class registration will be accepted only during the time and day(s) announced in the University Class Schedule.

Any regular University student wishing to simultaneously enroll in 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 five (5) regular class days of any quarter. Fee payments may be made in advance of final complete registration. A student is eligible for a full or partial refund of fees upon withdrawal from the University only within the first five (5) 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 fifth 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 fifth regular class days in a quarter.

See FEES, next page.

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 the deadline announced in the University Class Schedule.

2. Students whose fees are paid by school boards or state or federal grants must individually forward their application by the deadline published in the University Class Schedule. County contact persons should contact the Office of Records and Registration for further procedures.

Regular students who wish to schedule on-campus and continuing education courses simultaneously should follow normal procedures to register for on-campus courses and then use the special Continuing Education Form to schedule off-campus courses.
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) . . . $15.00

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

<table>
<thead>
<tr>
<th></th>
<th>Florida Resident†</th>
<th>Non-Florida Resident†</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Registration Fee and Tuition:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. For students registering for less than seven quarter hours (credit or non-credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>†Graduate (per quarter hour)</td>
<td>$16</td>
<td>$41</td>
</tr>
<tr>
<td>†Undergraduate (per quarter hour)</td>
<td>$14</td>
<td>$39</td>
</tr>
<tr>
<td>B. For students registering for seven or more quarter hours (credit or non-credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>†Graduate</td>
<td>$175</td>
<td>$475</td>
</tr>
<tr>
<td>†Undergraduate</td>
<td>$150</td>
<td>$450</td>
</tr>
</tbody>
</table>

2. Late Registration Fee (chargeable to any student who fails to register and/or pay within the formal registration period. This fee is also charged when the check is submitted within the time limit but is returned by the bank for any reason.) $25.00

3. Audit Fees (same rate as if registered for credit.)

4. Cooperative Education Program (for training quarter) $40.00

C. Room rent to be paid in accordance with information in Housing Contract.

<table>
<thead>
<tr>
<th></th>
<th>Per Quarter§</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Room rent Quarters I, II, III</td>
<td>$160.00</td>
</tr>
<tr>
<td>2. Room rent Quarter IV</td>
<td>$125.00</td>
</tr>
</tbody>
</table>
D. The following food service plan options are available to all students.* *

1. Saga Food Service
   - 20 meal plan—Monday through Sunday: $185.00
   - 15 meal plan—Monday through Friday: $170.00
   - 10 meal plan—Monday through Friday: $160.00

2. Eastern Food Service
   - 20 meal books in 25 cent denominations at $18.95 per book.

* In addition, a service fee of $3.00 per credit hour must be paid for each hour in all courses taken in the Continuing Education Program. (These courses are designated by the "700 series" section number.)

** The prices listed are for the academic year 1970-71 and are subject to change for the academic year 1971-72.

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

‡‡ Items 2 through 4 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 Office of the Registrar. The issuance of these refunds will be detained for a two-week period immediately following each official University registration, and the refunds will be made under the following conditions.

1. A full refund will be made for a full-time or part-time student making a complete withdrawal from the University during the "Drop and Add" period in any quarter. There will be a full refund less proper charges per hour for each hour continued by students changing from full-time to part-time during the "Drop and Add" period in any quarter.

2. No fees will be refunded after the end of the "Drop and "Add" period 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 during the term for which enrolled would 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. 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.

d. Cancellations would be considered a separate category where the student is considered not registered because of the University’s actions, usually resulting from some pre-existing University regulations.

3. No refund will be made under this policy except upon proper application for the refund through the Office of the Registrar.

4. No part of the student activity fee will be refunded if the student fails to surrender his original (current quarter) “Certification of Fee Payment” card.

5. Deductions from authorized refunds will be made for unpaid accounts due the University.

6. A full refund of out-of-state fees will be made if withdrawal is effected during the “Drop and Add” period in any quarter.

**PAYMENT OF ACCOUNTS DUE THE UNIVERSITY**

Charges against students for loss or breakage of University equipment, books, fines, and other charges will be required to be paid within ten (10) days of notification. Failure to comply may result in cancellation of the student’s registration and/or the privilege to re-register.

**CHECK CASHING SERVICE**

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 service charge of 10 cents is made for each check cashed. All checks returned by the bank must be cleared within 7 days of date of notification to the student. Failure to comply may result in cancellation of the student’s registration.
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. Whenever a student falls into this category he will be placed on Academic Warning status 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 academic warning 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 Academic Warning status 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.

ACADEMIC WARNING STATUS—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 on the next 12 quarter hours of enrollment. 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. This rule overrides all others. Normally, one full quarter must pass before such a petition will be considered. However, readmission should not be considered automatic. 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.

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.

Information for graduate students is shown on page 152.
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, 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 Director of Records & Registration. He will work closely with other University officials and faculty advisers in these matters.

Students having questions or problems about these matters should go to either their adviser, the Office of Records & Registration or the dean of the college in which they are enrolled.

Each student placed on Pending should determine from the Office of Records & Registration 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 without a fee during the time designated as the "change period" at registration. The adding of courses after the "change period" is not permitted.

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.

REGISTRATION CANCELLATION

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. These forms, if mailed, must be postmarked before midnight of the day before classes start or delivered to the Registrar's Office in person by the same deadline.

COURSE WAIVERS

See information under College of Basic Studies.

DROPS

For the first six weeks of any term a student may drop a course or courses without penalty (he will receive a grade of "W") by completing and turning in a "DROP" form at the Office of Records & Registration. Any course drop after the first six 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 Regis-
tration 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 within four consecutive quarters, there will be posted on the student’s record “disqualified—two withdrawals.” 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-baccalaureate degree seeker
1 Freshman 0 through 44 quarter hours passed
2 Sophomore 45 through 89 quarter hours passed
3 Junior 90 through 134 quarter hours passed
4 Senior 135 or more quarter hours passed, however no baccalaureate degree earned here or elsewhere
5 Baccalaureate degree holder working on a second undergraduate major or taking courses for enrichment or certification.
6 Graduate students working for degree or non-degree in the graduate program
7 Graduate degree holders working on a second degree or for enrichment or certification purposes
8 Students in the Doctoral program for degree or non-degree
9 Students with a doctoral degree

Non-Degree Students who accumulate 45 or more hours are advised to enroll for a degree program.

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 12 quarter hours with a minimum average of 2.0 (C). Information for graduate students is shown on page 150.

ADMISSION TO 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. Qualified 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 else-
where 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 or in one of the approved exchange programs (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 Office of Records & Registration.

APPLICATION FOR GRADUATION

Each student who plans to complete his graduation requirements by the end of a term must complete the Application for Graduation within fifteen class days of the beginning of the term he is graduating in. The application is available at, and after completion must be returned to, the Office of Records & Registration.

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 plus physical education requirements with at least a “C” average for all University of South Florida courses attempted in order to be eligible for graduation. The hours for a course which has been repeated may be counted only once toward this minimum 180 quarter hours of credit. At least 60 of his quarter hours must be for upper division level work (courses numbered 300 or above).

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 graduating 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.

SECOND MAJOR

Once a student receives a specific degree at the University of South Florida, he cannot receive a second one. However, he may apply for a second major. After acceptance by the appropriate college or division and proof of completion his "permanent academic record" will be posted accordingly.

A student applying for a second major must do so within the same deadline set for applying for a degree.

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, change of name, change in marital status, change in residency, and change of citizenship should be filed promptly with the Office of Records & Registration.
**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.

**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.

**Bachelor of Independent Studies Degree Program**

The Bachelor of Independent Studies Degree Program is designed especially for adults twenty-five or over who are unable to dedicate a block of time in residence to complete a regular degree program. See page 54 for further information.

**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. For procedures and conditions, see the section on Graduate Study.

**University of Florida Correspondence Courses**

Because the University of Florida has been designated as the only institution in the State University System to offer correspondence courses, the University of South Florida will consider such courses as resident credit—with the grades not transferable.

**Selective Service**

To receive a (II-S) Student Classification, male students must:
1) File SS Form 104 with their local board
2) Complete a USF Selective Service Information Request Form at Registration or in the Office of Records & Registration, ADM 264, within 10 days following registration.

The University assists the student by submitting an Enrollment Certificate at the time he is first enrolled and yearly thereafter to local draft boards for every full-time male undergraduate and graduate student who has a selective service number on file at the University.

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 Office of Records & Registration.

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 Office of Records & Registration 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.

Effective December 16, 1970, in accordance with Section 1775 (a) (1), Chapter 36, Title 38, U.S. Code, State approval was extended to cover the accredited courses and programs listed in the Continuing Education Bulletin, Quarter II, 1971, for the enrollment of veterans and war orphans.

Note: Full-time status for undergraduate students varies each quarter. Students should consult the class schedule each quarter for changes. Graduate students must schedule a minimum of 9 quarter hours to maintain full-time status. Co-op students must maintain full-time status while in classroom to avoid termination of benefits.

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.

College Level Examination Program (CLEP)

Students who have a strong background in general education may earn
up to 45 hours of credit at USF through the CLEP program. The CLEP program consists of five tests taking six hours to complete at a cost of $15.00. Arrangements for the tests may be made through the Office of Evaluation Services. It is not necessary for a student to take the entire set, although the cost would still be $15.00.

Successful completion of any of the tests means performance at or above the 50th percentile, sophomore norms. Credits assigned for successful completion of the tests are as follows:

<table>
<thead>
<tr>
<th>Test</th>
<th>CBS Credit</th>
<th>Elective Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>8 hours for CBS 101-2</td>
<td>1 hour</td>
</tr>
<tr>
<td>Humanities</td>
<td>5 hours (the remainder of the requirement may be met with any one of CBS 308, 315, 316 or 317).</td>
<td>4 hours</td>
</tr>
<tr>
<td>Social Science</td>
<td>9 hours for CBS 301-2</td>
<td>—</td>
</tr>
<tr>
<td>Mathematics</td>
<td>—</td>
<td>9 hours</td>
</tr>
<tr>
<td>Science*</td>
<td>—</td>
<td>9 hours</td>
</tr>
</tbody>
</table>

* If the physical science subscore equals or exceeds the 50th percentile, the student can take 6 hours credit for CBS 208-9 and 3 hours elective credit. In this case, he needs to take CBS 210 to complete the physical science sequence.

The following restrictions will apply
1) A student may not receive both transfer credit and CLEP credit in the same area. Normally, whatever occurred at the earliest point in time is what should appear on the student’s permanent record.
2) The maximum number of hours for which a student can obtain credit from extension, correspondence, and USAFI courses, combined with the CLEP, is 45 hours.
3) The student cannot receive credit by way of the CLEP if he has already taken courses at an institution of higher learning covering the area of concern.

**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.

It is the responsibility of the College of Basic Studies to provide an advising program for students during their first two years of study. The new student should contact the Coordinator of Student Advising in the College of Basic Studies for an adviser assignment. Since the beginning student gener-
ally is in greater need of advice and guidance, a selected corps of advisors serves students who are registered in the College of Basic Studies. 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 of students entering the upper level programs is the responsibility of the Colleges of Business Administration, Education, Engineering, Liberal Arts, and Nursing. The new upper level student should contact the Office of Student Advising in the appropriate division office of the College of Liberal Arts or the Student Advising offices in the other Colleges.

A student usually meets 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 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 and fee structure apply to all courses scheduled through the credit by examination procedure.

INDEPENDENT STUDY

Graduate or undergraduate 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 (hours earned in S-U graded courses are excluded). Cooperative Education students may substitute one training quarter for one of the three-on-campus quarters.

The Phi Kappa Phi honor society recognizes outstanding students.

**DEANS LIST**

Full-time undergraduate students who demonstrate superior academic achievement, on the same basis as above, but during one quarter, will be honored by qualifying for the “Dean’s 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.

**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:

- S—Satisfactory
- U—Unsatisfactory
- W—Withdrawal from course without penalty
- X—Incomplete
- X—An “X” grade may be used for any authorized failure to meet
the requirements of a course. Until removed, the "X" is computed in the grade point ratio as "F" for undergraduate students. For graduate students, there is no computation for an "X" grade. The time limit for removing the "X" grade is set by the instructor in conjunction with the University Registrar.

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

S-U GRADE SYSTEM

Certain courses have been designated by the University Senate or Graduate Council as S-U courses. The "S" and "U" grades are used to indicate the student's final grade. These S-U courses are identified each quarter in the University Class Schedule. No grading system option is available to students or faculty in these courses.

Effective Quarter I, 1970, the university initiated on a trial basis a Satisfactory- Unsatisfactory grading system that would allow students to enroll in most courses utilizing the S-U grading system. Excluded courses are: CBS 401, the Internship Block in the College of Education, and "S"-"U" PEB courses necessary to fulfill graduation requirements. Participation in this system is at the discretion of the college, department or individual (student or faculty). It is the responsibility of the college to notify students during the first class session if the course is to be offered on an S-U basis. It is the responsibility of the student to secure approval from the instructor to take the course on an S-U basis.

Quotas, exclusive of CBS 401, the Internship Block, and "S"-"U" PEB courses necessary for graduation requirements, will be one course per term with the maximum number of total hours not to exceed 15 quarter hours. The S-U courses required for graduation are not part of these quotas.

S-U 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.

GRADE POINT RATIO

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.

ACADEMIC SERVICES

Computer Research Center

The University maintains centralized, high-speed 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.

Computer facilities have expanded with the University from an IBM 1410 in 1969 to an IBM 360/65 system in 1970. As demand increases, remote batch processing terminals and other on-line terminals will be added and will use the centralized computer.

In addition to computer facilities, the Computer Research Center maintains keypunch, sorter and electronic calculator devices in “open use” areas on a 24-hour basis to assist students and faculty in preparation, processing and checking of their data.

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. Various types of audio-visual equipment can also be rented.

Production Services. Graphic, photo, and cinematography 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 stereo station operating on 89.7 mhz. WUSF-TV, Channel 16, UHF, is a non-commercial television station serving the University and the communities of the nine surrounding counties. These facilities are used as a laboratory for students enrolled in the broadcasting curriculum.

Instructional Materials Center. The Center maintains a collection of records, filmstrips, filmloops, tapes, transparencies, maps, slides, and a curriculum library of elementary and secondary instructional materials. All items circulate to students and staff for study and recreational use.

Film Library. A large collection of 16 mm films is maintained to support instruction. Preview, booking, scheduling and showing of films is offered. Films not a part of the University Film Library will be requested from other sources through this agency.

Learning Laboratory. A telephone dial-access audiovisual laboratory is available for instructional purposes. Over 190 different audio programs are accessible at one time. A switchboard handles outside calls for audio programs. Video tapes, 16mm films, slides, and television programs make up the 12 video sources available in the laboratory. These programs may also be channeled to on-campus classrooms via the closed circuit capabilities of the Learning Laboratory.

Student Production Center. The center offers both graphic and photo facilities for staff and student use.
Office of Evaluation Services

This office conducts testing programs, test scoring, and institutional research. Testing services consist of those for admission to colleges and special programs, graduate and professional school admission such as the Graduate Record Examination, foreign language proficiency, and many other special programs.

Test scoring, statistical analysis of tests, and advisory service in test construction are provided to faculty and other agencies.

The office serves as the research arm of the Institutional Research Committee in the evaluation of academic programs within the University.

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 bereft 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 300,000 volumes and seating for 800 readers.

The Circulation desk, 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 depository 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.

Division of Sponsored Research

Research is an important aspect of the education programs at the University of South Florida. Faculty members are encouraged to pursue research ac-
tivities, 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 Division 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 Division 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 Aging, Marine Science, Exceptional Children and Adults, Speech Pathology and Audiology, and Rehabilitation.

The USF Center is structured within the Office of the Vice President of Academic Affairs 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.

*University Theatre/Auditorium*
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.

Bicycles

Students may use bicycles on campus. Parking blocks, bicycle racks, and designated areas in parking lots are available to park bicycles. All bicycles used on campus must be registered with the Security Department and the Traffic Regulations adhered to.

Student Association

The Student Association 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 Association. Through its councils and elected officers, the association directs many student activities. Elections for membership on college councils and for Student Association offices are held regularly.

Representation in the Student Association Legislature is based on proportional representation from the residence areas, the colleges, and commuters. College representation is based on the senatorial system.

The Student Association is the medium through which students participate in the program of University life.

Insurance

TRAVEL INSURANCE

Students may obtain accident insurance for a nominal charge at the USF 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 $7 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.

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.
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. The residence hall program emphasizes attractive surroundings, opportunity for group activity, self-government, and counseling services of professional people. Provision of adequate living conditions is a responsibility shared by students, parents, and the University.

Regularly enrolled students paying the registration fee for full-time attendance are eligible to live in University residence halls. An application for a room in University Residence Halls is sent with the Official Acceptance notification. Housing assignments are made without discrimination as to race, color, or national origin.

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 recreation room, conference rooms, and Argos Shop (an annex of the University Campus 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 rooms of the students residing in this complex, and has most of the same facilities as the Argos Center.

OFF-CAMPUS HOUSING

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

The Housing Office maintains a list of off-campus housing. Listings are accepted only from householders and landlords that do not discriminate because of race, color, or national origin. Rental arrangements may 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 have available three meals a day in cafeterias and snack bars. A variety of food plans are offered through two food service contractors. 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 Health Service.

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.

**Counseling Center for Human Development**

The Counseling Center, located in the Social Science Building, provides services for students desiring professional assistance in the areas of reading-study skills, vocational guidance, personal counseling, psychiatric consultation, tutoring, speech and hearing, and Vocational Rehabilitation. These services are available to assist students in evaluating and remediying problems which interfere with efficient learning and satisfying participation in campus life.

The Reading-Study Skills Service provides diagnosis and evaluation of reading skills and study habits. Two approaches are offered: (1) non-credit classroom courses are offered which include extensive instruction and practice in word attack, vocabulary, and comprehension skills; (2) an Independent Study non-credit course is available with the emphasis on the unique individual need. Reading-Study Skills Laboratory Service is available for all students enrolled in either the classroom or independent study sections. Regular registration procedures will be followed for either of the above courses. Visual screening is also available.

The Speech and Hearing Service offers diagnostic, evaluative, and therapeutic sessions for students whose speech and hearing interferes with effective communication, or may not meet later academic or vocational requirements. Speech and hearing screening is required for all new entering students. Individual therapy is available for students who are referred or feel a need for specific speech improvement.

Counseling Services are available in the Center (and in the Satellite Services in the residence complexes) to any student who wants personal or career counseling. Personal counseling is aimed at helping people understand themselves and achieve personal potentials. Career counseling utilizes interviews, diagnostic tests, and a career library to help the student reach his academic and career goals.

Students desiring special assistance in their courses may apply to the Counseling 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 Counseling Center staff.

Psychiatric Services aid the student when medication, hospitalization, or
psychiatric evaluation is needed. Evaluations by the Counseling or Psychiatric Services in conjunction with administrative decisions of the Dean of Students, Housing and Food Services, academic colleges or departments, and individual faculty will be rendered only at the request of the student and with a written “Release for Recommendation” signed by the student.

Vocational Rehabilitation is a State of Florida service located in the Counseling Center to facilitate the University students’ utilization of aid available.

Application for any of these services of the Counseling Center may be made by any student at any time and as often as desired. Center staff and faculty limitations will restrict servicing of new applications to emergencies during peak periods.

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 would 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 percent. Payment must be made within ten years. Part or all of this loan may be cancelled if a student teaches in a public elementary or secondary school, college or university after graduation, or by active duty in the Armed Services of the United States after receipt of the loan. Payment is deferred if the student enters the Peace Corps or Vista.

U.S. Cuban Education Loans are available to Cuban Nationals on the basis of financial need, and who have not attained permanent residency in any state. This program parallels the National Defense Education Act Student Loan qualifications, and the amount which may be borrowed.

Florida State Education Loans permit any student who has been a resident of Florida for a minimum of three years to borrow an amount, not to exceed $1,200 per academic year, on the basis of the financial need analysis of the student. Repayments begin four months after the borrower ceases to be a full-time student, at which time the loan begins drawing four percent interest. Repayment of the loan must be completed within five years.

The Law Enforcement Education Program (LEEP) has been established
under the Omnibus Crime Control and Safe Streets Act of 1968. It is administered by the Justice Department for the purpose of providing financial assistance to allow in-service law enforcement officers to continue their education at the college and university level, and to provide funds to encourage young men and women to criminal justice careers after they have achieved college degrees. Assistance is authorized in the form of grants and loans, up to a maximum of $1,800 for the academic year.

Additional long-term loans may be granted, subject to the availability of funds, from the following programs: USF Student Loans, USF Special Opportunity Loans, the Henry & J. Edward Rosennzaig Memorial Fund of the National Council of Jewish Women, the Shane Fund, the Marty Starns Memorial Loan Fund, Sertoma Club of Tampa Loan Fund, James J. Love Memorial Scholarship Loan Fund, Selby Foundation Scholarship Loans, Pan-American Women’s Club Loans, and B’nai-B’rith Women of Tampa Loan Fund.

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.

The following scholarships are available to qualified students: Alcoa Foundation Scholarship; Grace Carlton Allen Scholarship; American Business Women’s Association Scholarship; American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc. Scholarship; Pauline Bush Scholarship; Elizabeth Cone Book Scholarship; Florida Accountants Association Scholarship; Gulf Coast Chapter; Fontana Hall Scholarship; Food Fair Stores Scholarship; General Telephone Company Scholarship; General Telephone Company All-Employee Chorus Scholarship; Patrick Gordon Estate Scholarship; Industrial Supply Corporation Scholarship; Knight & Wall Company Scholarship; Maas Brothers Scholarship; Pan American Petroleum Foundation Scholarship; Personnel Administration Association of Central Florida Scholarship; Pi Kappa Alpha Fraternity Scholarship; Pi Sigma Epsilon Fraternity Scholarship; Radio Station WTMP Scholarship; Readers’s Digest Foundation Scholarship; Ione Lister Simmons Creative Writing Scholarship; SPARC Guild, Inc. Scholarship; Sun City Center Woman’s Club Scholarship; Tampa Lakes Woman’s Club Scholarship; Tampa Panhellenic Association Scholarship; Tampa Wholesale Liquor Company Scholarship; Tampa Woman’s Club Scholarship; University of South Florida Woman’s Club Scholarship; USF Registration-Fee Work Scholarship; and Winn-Dixie Stores Foundation Junior-Senior Scholarship.

Information on the following scholarships is available in the office of Financial Aids: Brecht Scholarship; John Stewart Bryan Memorial Scholarship; Delta Delta Delta Sorority Scholarship; Gulf Life Insurance Company Scholarship; Florida State Board of Regents Scholarship; Florida State Teachers’ Scholarship; Model Cities Scholarship; Teachers of the Mentally Retarded Scholarship; and Winn-Dixie Stores Foundation Scholarship.

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

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 require-
ment for eligibility. Certification for eligibility must be received from the Office of Financial Aids.

Students with a minimum of twenty-four quarter 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 55.

Graduate assistantships, scholarships, and fellowships: Students should inquire directly to the head of the department in which they intend to major.

Children of Deceased Veterans should apply to: Mr. Melvin T. Dixon, Florida Department of Veteran Affairs, P. O. Box 1437, St. Petersburg, Fla. 33731.

The Florida Council for the Blind, P. O. Box 1229, Tampa, Florida 33601, provides financial help for blind students.

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

The Vocational Rehabilitation Division, State Department of Education, Tallahassee, Florida, provides limited assistance to students who are handicapped.

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

In the award of financial assistance by the University, no student is discriminated against because of race, color, or national origin.

**Career Planning and Placement Center**

The purpose of the Career Planning and Placement Center 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 the Career Planning and Placement Center 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 the Career Planning and Placement Center as an adjunct to the Graduate Placement Services, the Cooperative Education Program and the Counseling Center for Human Development, for the benefit of all students.

The Career Planning and Placement Center 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 at-
tending graduate school are encouraged to begin their investigation of opportunities in this office.

Students register with Career Planning and Placement Center 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 is stocked with textbooks only. The Merchandise Department on the first floor is stocked with general school supplies, required course supplies, art prints, USF monogrammed clothing, jewelry, sorority and fraternity items, cosmetics, records, greeting cards, sundries, etc. Typewriters, personalized stationery, desk pen sets, class rings, academic regalia, and many other items may be special ordered. Services such as check cashing ($50.00 limit), film development, copying machine, candy and cigarette vending machines are available.

Argos Campus Shop, located in the Argos Complex, has a large selection of hardbound and paperback general books, as well as trade books, children’s books, and study aids. Books not in stock may be special-ordered.

The Bookstore for the St. Petersburg Campus, located in the Administration Building, is equipped with required textbooks and supplies, as well as non-required paperback books and sundries.

The Pro Shop at the USF Golf Course has a wide selection of golf clubs, bags, and applicable supplies and accessories. These are available to 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 Club for those interested in dance, Bay Players for those interested in Theatre, and Phi Mu Alpha and Sigma Alpha Iota for those interested in music—welcome all students to participate. Students are also welcome to join such academic units as the University Orchestra, the University Concert Band, and the University Community Chorus (see Music course descriptions); and Theatre USF and Experimental Theatre (see Theatre Arts 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 many varied and significant 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, Florida Center for the Arts, USF.
STUDENT 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 weekly during the school year. Containing 8 to 16 pages in each issue, it provides professional experience for those students interested in journalism. Any student interested in working on the newspaper in any capacity is not only encouraged but urged to participate.

A University yearbook, *The Aegean*, is produced each spring. All students are eligible to work on this publication and gain much valuable experience in photography, layout, editing, and business techniques.

A campus literary magazine, *South Florida Review*, is produced annually. While the magazine is sponsored by the Office of Campus Publications, anyone at the University may submit manuscripts, photographs, or drawings for consideration.

Interested students are invited to apply for staff positions on any campus publication.

FRATERNITIES AND SORORITIES

There are currently fourteen national fraternities and eight 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 students, 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. (The center is an ecumenical campus ministry of the following denominations: Methodist, Presbyterian, Lutheran, 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 Bahá‘í Club, Baptist Student Union, Campus Crusade for Christ, Catholic Student Organization, Christian Science Organization, Free Religious Fellowship, Hillel of University of South Florida, Independent Christian Church Fellowship, Student Vesty of the Episcopal Church, and the University Religious Council.

SERVICE AND HONORARY

Alpha Phi Omega (men’s national service fraternity), Athenaeum (women’s honorary), Campus Gold (women’s service group), Circle K, Ethos, Gamma Theta Upsilon (geography honorary), Phi Kappa Phi honor society, Kappa Delta Pi (education honorary), Omicron Delta Kappa (men’s leadership honorary), Phi Mu Alpha Sinfonia (men’s music honorary), Pi Mu Epsilon (mathematics honorary), Pi Sigma Epsilon (marketing honorary), Women of Pi Sigma Epsilon, Psi Chi (psychology honorary), Sigma Alpha Iota (women’s music honorary), provide associations for leadership and University service experience.
SPECIAL INTEREST AND ACADEMIC 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 Action Party, Aero Club, A.I.E.S.E.C. of USF, Afro-American Society, USF Amateur Radio Club, Art Vanguard, Bay Players, Board of Directors, Classical League, COETTS, Computer Club, Environment '70, International Revolutionary Melodious Marching Caucus, Pacifist Action Council, USF Parapsychology Society, Political Union, Radical Action Coalition, Student American Civil Liberties Union, USF Student Missionaries of the New Truth, Student Mobilization Committee, Students for Responsible Government, Student Sociological Association, United Native Americans, Veterans Club, Vocations for Social Change, Whole Earth Cult, USF Young Democrats, USF Young Republicans, Youth International Party, Young Americans for Freedom.

ACADEMIC ORGANIZATIONS

Anthropology Club, Association for Childhood Education, Bay Players, USF Chemical Society, USF Dance Club, Economics Club, Florida Engineering Society, Forensics Club, Geology Club, German Club, Gerontology Club, Italian Club, Library Education Audio-Visual Organization, Marine Biology Club, Masters of Business Association (MBA), Pre-Medical Society, Readers Theatre Guild, Russian Club, Senior Accounting Organization, Student Florida Education Association, Student Guidance Organization, Student Music Educators National (SMENC).

SPORTS CLUBS


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; Council of Fraternal Societies 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 Association; University Center Program Council; University Religious Council; World Affairs Council; and the Management Student Advisory 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 other recreation activities, 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, gymnastics, judo, karate, sailing, sports car, 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, coed activities, and other special project activities related to the development of campus recreation.

**Intercollegiate Athletics**

The University of South Florida fields intercollegiate teams in baseball, basketball, cross-country, golf, soccer, swimming, and tennis. South Florida is a member of the National Collegiate Athletic Association and has sent several teams each year to the national tournaments. Schedules are arranged to include quality 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 seven 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 several master’s degrees. The College of Education offers professional courses leading to the bachelor and master of arts and Ph.D. degrees. The College of Engineering offers programs leading to bachelor’s and master’s degrees 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, chemistry, English, mathematics, and psychology. The College of Medicine is dedicated to the preparation of students for the practice of medicine and confers, upon successful completion of the program, the M.D. The College of Nursing offers a four-year program leading to the bachelor of science degree. Each of these colleges has its own requirements and standards. However, all share University-wide emphases and certain common requirements for graduation. Several institutes offer master’s degrees in specialized fields.

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 (Quarter IV) 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 and by outstanding visiting teachers. In addition to regular courses, there are various credit and non-credit workshops, institutes and conferences conducted by specialists.

While the Summer Session serves as a continuation of study, as the fourth quarter of the academic year for regular students, attempts are made to make the schedules of many courses and programs attractive to in-service teachers, junior college transfer students and 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 may be 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 available on the basis of the educational objective of the student.

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.

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.

Continuing Education

LOCATIONS

Programs described below are available in many geographical areas but coordination of these programs is handled through the Center for Continuing Education located on the Tampa campus, the St. Petersburg campus, and the Sarasota Office for Continuing Education. Individuals desiring more information may 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 grad-
ACADEMIC 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 for 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 consultants, instructors and lecturers for the programs.

Professional program coordinators are 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.

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 professional 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.

SARASOTA OFFICE FOR CONTINUING EDUCATION

The Sarasota Office for Continuing Education was established to offer University services in Sarasota and Manatee Counties and to coordinate credit and non-credit courses in that area. The Sarasota Office is located in a building on the Sarasota High School campus and classes are held in the high school.

CHINSEGUT HILL CONFERENCE CENTER

The Chinsegut Hill Conference Center is the University of South Florida's
ACADEMIC PROGRAMS

educational center, available for conferences, workshops, planning meetings, seminars, retreats, and field trips. Chinsegut Hill is a 180-acre tract surrounded by a 6,000-acre federal agricultural and beef cattle experiment station, wildlife refuge, and forest reserve. It is located five miles north of Brooksville, Florida, off U.S. Highway 41 by way of State Road 581.

The manor house at Chinsegut Hill has indoor facilities to accommodate 50 to 60 people, with maximum single room capacity of 35. The mansion's long verandas are also suitable for meetings. Overnight groups of up to 20 persons can be housed in the mansion. Arrangements to use the Chinsegut Hill Conference Center should be made through the Center for Continuing Education.

Bachelor of Independent Studies
Degree Program

The Bachelor of Independent Studies Degree Program is designed especially for adults twenty-five or over who are unable to dedicate a block of time in residence 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 Adult Degree Program 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 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:

- Application Fee ................................................. $ 15.00
- Pre-Enrollment Procedures ...................................... 50.00
ACADEMIC PROGRAMS

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*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) into or out of the BIS Program.

Cooperative Education Program

The Cooperative Education Program is an academic program open to majors in all disciplines offered at the University. The program's objective is 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. The ultimate objectives of the program are to provide relevance in the educational process, direction in career planning, and bringing business, industry, and governmental agencies close to the educational program of the University and have the graduates absorbed into permanent employment of the 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. Five of NASA's centers currently have University of
South Florida students in their training programs as well as NASA Headquarters in Washington, D.C.

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 at the 400 level. 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 Report (1-5 credits). This course is designed specifically for Cooperative Education students in which the student pursues a 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 project. The findings of this project would be embodied in a written report. This course may be used with prefixes 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.

The Cooperative Education Program also serves those students who desire one-term placement with an employer, a term of travel or research, or one of the other methods of opportunity offered by Cooperative Education.

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:

Alton Box Board Co., Jacksonville
Atlanta Public School System, Atlanta, Ga.
Bonwit-Teller, New York, N.Y.

Bramlett Mfg. Corp., St. Petersburg
Continental Baking Co., Tampa
Continental Can Co., Tampa
Diamond Shamrock, Maryland
FMC Corp., Lakeland
Florida National Bank, Jacksonville, Fla.
Florida Pollution Ctr., Tallahassee
Florida Power Corp., St. Petersburg
Florida Power & Light, Miami and Sarasota
Florida Dept. of Transportation, various locations
Ford Motor Co., Atlanta, Ga., and Dearborn, Mich.
General Telephone Co., Tampa
Georgia Fish and Game Commission, Brunswick, Ga.
Georgia Power Co., Atlanta, Ga.
Congressman Gibbons' Office, Washington, D.C.
Hillsborough Cty. Clerk of the Circuit Court, Tampa
Hillsborough Cty. Health Dept., Tampa
Hillsborough Cty. Hospital & Welfare Board, Tampa
Hillsborough Cty. Juvenile & Domestic Relations Court, Tampa
Hillsborough Cty. Planning Commission, Tampa
Hillsborough Cty. Pollution Control, Florida
Hillsborough Cty. Pollution Commission, Florida
Honeywell, St. Petersburg, and Tampa
Insurance Co. of North American (INA), Tampa
Lockheed-Georgia Co., Marietta, Ga.
MacDonald Training Ctr., Tampa, Fla.
Martin E. Segal, New York
Montgomery Wards, Tampa, Fla.
North American Rockwell, Cocoa Beach, Fla.
Pan American Airways, Florida
Peat, Marwick and Mitchell, Tampa
Polk Cty. Public Health Dept., Florida
Pratt and Whitney Aircraft, West Palm Beach
Princeton - Pennsylvania Accelerator, Princeton, N.J.
South Florida, University of, Computer Research Center, Tampa
South Florida, University of, Instructional Material Center, Tampa
South Florida, University of, Procurement, Tampa
South Florida, University of, Div. of Purchasing, Tampa
Tampa Electric Co., Tampa
The Tampa Times, Tampa
WTVT-TV, Tampa
WFLA Television, Tampa
Westinghouse Corp., Tampa
Yarborough Dennard and Tench, Clearwater, Fla.
Arthur Young and Co., Lakeland, Jacksonville, Tampa

U. S. FEDERAL AGENCIES

Air Force Eastern Test Range, Patrick AFB, Fla.
Army Missile Command, Huntsville, Ala.
Bureau of Commercial Fisheries, Pascagoula, Miss., and St. Petersburg Bch., Fla.
Central Intelligence Agency (CIA), Washington, D.C.
Comptroller of the Currency, Atlanta, Ga., and Jacksonville, Tallahassee and Tampa
Corps of Engineers, Jacksonville, and Tampa, Fla., and Atlanta, Ga.
Food and Drug Adm., Atlanta, Ga., Washington, D.C., and St. Louis, Mo.
General Services Adm., Washington, D.C.
Internal Revenue Service, Tampa, Jacksonville, and Miami, Fla.; and Washington, D.C.
National Aeronautics and Space Administration, Hampton, Va.; Greenbelt, Md.; Cape Kennedy, Fla.; Houston, Texas; Huntsville, Ala.; Wallops Island, Va.; and Washington, D.C.
National Institute of Neurological Diseases and Stroke, Bethesda, Md.
National Park Service, New York, N.Y., and Washington, D.C.
National Security Agency, Maryland
Naval Air Rework Facility, Jacksonville
Naval Ordnance Station, Indian Head, Md.
Naval Ship Research & Development Ctr., Washington, D.C.
Naval Training Device Ctr., Orlando
Office of Education, Washington, D.C.
Passport Agency, U.S. Dept. of State,
Picatinny Arsenal, Dover, N.J.

Social Security Administration, Atlanta
Ga., and Baltimore, Md.
Tennessee Valley Authority, Knoxville, Tenn.
U. S. Coast Guard, Washington, D.C.,
and Alexandria, Va.
### 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 complete most of its requirements before entering one of the other colleges of the University.

Lower division courses are offered by the college in eight areas plus Physical Education.

The Basic Studies requirements for most majors are the completion of six out of the following eight areas over a four-year period:

<table>
<thead>
<tr>
<th>AREA</th>
<th>COURSES OFFERED</th>
<th>NUMBER REQUIRED</th>
<th>TOTAL CREDITS REQUIRED</th>
<th>MUST BE TAKEN IN NUMERICAL SEQUENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English (Required of all students)</td>
<td>CBS 101, 102</td>
<td>2</td>
<td>8</td>
<td>yes</td>
</tr>
<tr>
<td>Behavioral Science</td>
<td>CBS 201, 202, 203</td>
<td>3</td>
<td>9</td>
<td>yes</td>
</tr>
<tr>
<td>Functional Math</td>
<td>CBS 109, 110</td>
<td>2</td>
<td>10</td>
<td>yes</td>
</tr>
<tr>
<td>Modern Languages</td>
<td>See pages 164-5</td>
<td>2</td>
<td>7, 8, 9, or 10</td>
<td>yes</td>
</tr>
<tr>
<td>Biological Science</td>
<td>CBS 205, 255, 206, 256, 207, 257</td>
<td>3</td>
<td>9</td>
<td>no</td>
</tr>
<tr>
<td>Physical Science</td>
<td>CBS 208, 209, 210</td>
<td>3</td>
<td>9</td>
<td>yes</td>
</tr>
<tr>
<td>*American Idea</td>
<td>CBS 301, 302</td>
<td>2</td>
<td>9</td>
<td>yes</td>
</tr>
<tr>
<td>*Humanities</td>
<td>CBS 308 and 315, 316, 317</td>
<td>2</td>
<td>9 or 10</td>
<td>no</td>
</tr>
</tbody>
</table>

*Note: Freshman English must be completed before these areas are taken.

Some major areas require the completion of particular Basic Studies courses. Engineering, Business and Elementary Education are three such areas. Students should therefore check the catalog for their own areas of interest to determine what is required in their own situations.

In Modern Languages the student has a selection from more than one language (a year of Latin or Ancient Greek may be substituted for a functional modern language course); but only one language can be used to satisfy basic studies requirements. The Physical Education requirement is explained in detail on page 62.
## REQUIREMENTS FOR WAIVING COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Prefix and Number</th>
<th>On Basis of Past Experience</th>
<th>On Basis of Other Courses to be Taken at USF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English</td>
<td>CBS 101-102</td>
<td>No Waiver</td>
<td>No Waiver</td>
</tr>
<tr>
<td>Behavioral Science</td>
<td>CBS 201-202-203</td>
<td>Evidence of competence acquired elsewhere. See course chairman.</td>
<td>No Waiver</td>
</tr>
<tr>
<td>Biological Science</td>
<td>CBS 205-206-207</td>
<td>Minimum of 3 years in high school, including Biology, Chemistry, and one additional unit other than General Science.</td>
<td>Pass Biology 201, 202, and 203 with a minimum “C” average.</td>
</tr>
<tr>
<td>Physical Science</td>
<td>CBS 208-209-210</td>
<td>Minimum of 3 years in high school including Chemistry, Physics, and one additional unit other than General Science.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>NOTE</strong>: The same high school courses may not be used to waive both the Biological and Physical Science.</td>
<td></td>
</tr>
<tr>
<td>Functional Mathematics</td>
<td>CBS 109-110</td>
<td>Minimum of 3 years in high school including 2 years of Algebra, one semester each of Trigonometry and Geometry.</td>
<td>Pass either one of the following 2 sequences with a minimum “C” average:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mathematics 302-303-304</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mathematics 211-212-213</td>
</tr>
<tr>
<td>Modern Languages</td>
<td>CBS 301-302</td>
<td>Minimum of 3 years of one foreign language.</td>
<td>No Waiver</td>
</tr>
<tr>
<td>American Idea (Not available to Freshmen)</td>
<td>CBS 315-316-317-308</td>
<td>Evidence of competence acquired elsewhere. See course chairman.</td>
<td>No Waiver</td>
</tr>
<tr>
<td>Humanities (Not available to Freshmen)</td>
<td>CBS 315-316-317-308</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Ordinarily a student would seek to complete his basic studies courses by the close of the junior year. It is recommended that the “300” level basic studies courses, American Idea and Humanities, be scheduled in the junior year. All students must register for CBS 401, Senior Seminar, during their senior year.

**Waiver**

Some entering students have already achieved competence in one or more areas of the basic studies. These students may request 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 a routine waiver must be completed in the Admissions Office during the first quarter the student is in attendance at the University. Transfer students and students who feel that they have special reasons for waiver should apply in the college office. 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 the waiver is requested are shown in the chart on the opposite page.

Lower division basic studies requirements may be satisfied by independent study or credit by examination, according to the procedures described on pages 40 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

Generally, if a student has had four years of high school language, he should enroll in either 203 or 301. Three years' high school would put him in the Intermediate II course, and two years' high school in the Intermediate I course. If there is uncertainty as to proper placement, the student should be referred directly to the Department of Modern Languages.

Advanced Basic Studies Major

An Advanced Basic Studies Major consists of HUM 311-312-313, CBS 403-404, CBS 405-406-407, and CBS 409-410, 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, plus 9 credits in the creative or performing arts. A graduate program leading to a Masters of Arts in Humanities Education is available; for requirements, see College of Education.

Basic Physical Education

Physical Education offerings in the College of Basic Studies include two lecture-laboratory courses which present the rationale for incorporating activity into modern life, and a wide range of activity courses which can facilitate accomplishment of goals set forth in the primary courses.

A four-course requirement (PEB 101, PEB 102, PEB 230, and optional activity) applies to all students under age 21 at first full-time USF enrollment. Course work will be determined individually for handicapped students by joint decision of the student, physical education representative and the Director of Student Health Services. Transfer students should note the information on “Evaluation of Transferred Credits” and then contact the Division of Physical Education for program evaluation.

The primary courses (PEB 101 and PEB 102) are normally taken during the freshman year.

Swimming ability is the third physical education requirement, and can be satisfied by taking appropriate course work or through credit by examination. The fourth course is elective and may be selected from the broad listing of activity courses. The physical education requirement should be completed before entering an upper level college. Enrollment in course work past that mentioned above is encouraged and counts as elective hours.

Each Basic Physical Education course receives one (1) hour credit. PEB 101 and PEB 102 receive letter grades and enter into the grade-point ratio (GPR). All other courses are graded on a pass-fail basis and do not affect the GPR.
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.

UNDERGRADUATE ADMISSION AND DEGREE REQUIREMENTS

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. Total of 90 quarter hours of credit with a grade point ratio of 2.0 or better.
2. Those holding an A.A. degree from a junior college or university in a parallel program.

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. Furthermore, the student should follow the business parallel program indicated in his junior college catalog, to assure graduation from the University of South Florida in minimum time. Should the junior college catalog not specify pre-business courses, we recommend the student take two semesters of mathematics, two semesters of economics, two semesters of accounting, and one semester of statistics while still at the junior college.

Business is requiring more and more analytical functions of its management-level personnel each year. One of the most basic analytical tools is mathematics and more and more higher mathematics is being required as prerequisite for business courses. The student is therefore encouraged to complete more than the minimum requirements of mathematics and add beginning calculus to his curriculum at the junior college.

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, of these nine hours no more than five quarter hours may be transferred for credits in the student’s major field.

From Non-Junior Colleges: Students attending a four year college who wish to transfer 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.

BUSINESS PRELAW

Those students intending to go on to law school after obtaining a B.A. degree in a business major should so indicate on their Application to Upper Level. Special counseling will be provided. Unless a specific degree in Accounting, etc., is desired, an explicit Pre-Law inter-disciplinary set of existing courses will be arranged under the Finance major.
Requirements for Graduation

Graduation requirements are 180 academic hours plus physical education requirements (See page 62 for further definition of P.E. requirements).

Of the 180 hours, the Business course credits may vary from 87 minimum to 100 maximum. Consequently, non-business courses may vary from 93 to 80. This variance depends upon the major field chosen and differences in mix of General Electives and Business Electives. If the student enters USF as a freshman, his requirements for graduation are:

1. Major Requirements:
   - 27 hours in Accounting including ACC 301, 302, 411, 421, 423, and two of the following: ACC 401, 402, 405, 412, 424, 425.
   - Business Electives: 14-20 hours of courses in College of Business Administration (other than accounting).

   It is strongly recommended that all accounting students take either GBA 371, Business Communication, or ENG 325, Advanced Expository Writing.

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 the-
oretical framework which will allow the individual student to identify and solve economic problems.

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

**Business Electives:** 14-20 hours in the College of Business Administration.

**General Electives:** These 23-36 hours must be taken outside the College of Business Administration.

### 3. FINANCE

**Major Requirements:** FIN 321, 411, 421, and 8 to 15 additional hours of upper level finance courses.

**Business Electives:** A minimum of 14 hours and a maximum of 20 hours of College of Business Administration courses outside of the Finance department.

**General Electives:** A minimum of 23 hours and a maximum of 36 hours may be taken outside the College of Business Administration. MTH 211, 212, 213 are strongly recommended.

### 4. MANAGEMENT

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

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

Regardless of the option selected, however, **all management majors receive the same degree:** a B.A. in Business Administration with a major in Management.

**Business Electives:** 14-20 hours of courses in College of Business Administration (other than Management) to be selected in consultation with assigned major adviser, GBA 351 and GBA 371 are strongly recommended for all Management majors. Other recommendations, depending upon option, are: FIN 411, 421, 351; MKT 413, 312, 403; ECN 431, 311, 313, 341, 343, 351, 361, 371, 401, 405, 411, 437; ACC 421, 422, 423, 425.

**General Electives:** 23-36 hours outside College of Business Administration. For those majors in Behavioral Science and Industrial Relations options, selections should be made primarily from Psychology, Political Science, Speech, and Sociology, in consultation with assigned major adviser; for Management Science option, MTH 211, 212, 213 are strongly recommended plus certain Engineering, and other courses, in consultation with assigned major adviser.

### 5. MARKETING

**Major Requirements:** Marketing majors are required to take the following 5 courses (18 hours): MKT 312, 315, 411, 413, and 419; and an additional 9 hours (3 courses) selected from MKT 311; 316, 401, 403, 405, 407, 409, 414, 417, 489 in consultation with their major adviser. Any substitutions for the elective courses must be approved in writing by the adviser and the chairman of the Marketing Department.

**Business Electives:** 14 to 20 hours of courses in the College of Business Administration to be selected in consultation with major adviser. Suggested selections from: GBA 351, 371, 362; MAN 311, 321, 341; FIN 411, 421; ACC 305, 421, 422; ECN 341, 351, 431, 437.

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

GRADUATE ADMISSION AND DEGREE REQUIREMENT

Courses are offered in the College of Business Administration leading to one of five Master’s degrees—the Master of Accountancy, the Master of Arts in Economics, the Master of Business Administration, the Master of Business Administration with specialization in Marketing and the Master of Science in Management. Applicants must meet the University minimum requirements listed on page 150. However, for programs in this College except the M.A. in Economics, a score of at least 450 on the Admission Test for Graduate Schools of Business must be substituted for a score of at least 1,000 on the Graduate Record Examination. These prerequisites are the following eight courses, or their equivalent: ACC 501, 502; ECN 501, 502, 503; FIN 501; MAN 501; and MKT 501. However, depending on the student’s undergraduate degree and the Master’s degree he is seeking the amount of prerequisites will be determined in conference with the student’s adviser. Courses in this College numbered 501-509 are ineligible for credit in the graduate programs of this College.

All graduate programs are to be completed with an overall “B” average (3.0 grade point average), and the student must give a satisfactory performance in a comprehensive examination after completion of all coursework.

Master of Business Administration

The M.B.A. program requires that a student satisfactorily complete a total of 48 quarter hours beyond the prerequisites listed above for graduate admission. These 48 hours include ACC 601, 602; ECN 605, 607; FIN 601, 602; GBA 603, 605, 615; MAN 601, 602; MKT 601, 602; and 9 elective credits in their coursework selected with the adviser’s approval.

Master of Accountancy

It is contemplated that students applying for admission to this program will have a baccalurate 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: GBA 603, 605; ECN 605, 607; MAN 602; FIN 601; Accounting Concentration including ACC 605, 606, 607, 611, 621, 623; and 12 quarter hours of electives to be selected by the student in consultation with his adviser. No more than six hours of the electives may be taken in the accounting area.
Master of Arts in Economics

The student in the M.A. in Economics program must complete a minimum of 45 quarter hours, including both coursework and thesis. The curriculum of 45 credit hours has four parts comprised of core courses, economics electives, general electives, and a thesis. The core courses, required of all students, include the following 14 credit hours: ECN 602, 603, 605, and 607. The economics electives involve a minimum of 15 credit hours where the student must select one of the following five credit hour courses: ECN 561, 623 or 625; and obtain the remaining ten hours from the following list: ECN 531, 561, 601, 604, 610, 623, 625. The general elective requirement may be satisfied when the student, with an adviser's approval, can obtain a maximum of ten hours of electives in coursework outside the area of economics. Depending upon the degree of difficulty or complexity involved, thesis credit may range from six to nine quarter hours.

Ideally, the applicant's undergraduate training should reflect a strong background in economic theory, supplemented with mathematics and statistics. An undergraduate major in economics is not required. Serious background deficiencies may require additional coursework.

Business Administration Building
Master of Science in Management

The Master of Science program builds specialized skills in characterizing and solving problems of administrative decision and action. Its foundations are behavioral science and quantitative analysis. While admission standards coincide with those of the M.B.A. program, the curriculum is distinct. Courses reveal the motivational and logical structures which underlie the various functional contexts in which managerial behavior takes shape. Additionally, courses are designed to foster facility, rigor, and independence in applied research. Supervised selection and systematic investigation of a significant problem is an integral part of the curriculum.

The program requires completion of not less than 48 quarter hours course work and satisfaction, by enrollment or waiver, of the following: (1) six graduate courses in administrative studies outside the field of Management, equivalent to ACC 601, ECN 607 or ECN 605, FIN 601, GBA 603, GBA 605 and MKT 601, and (2) ten graduate courses in Management, consisting of MAN 601, MAN 602, MAN 603, MAN 607, MAN 615, MAN 699 (6 hours), plus three management electives. On the basis of their academic backgrounds students may apply for waivers to the Director of Graduate Studies of the College of Business Administration.

The MBA with Specialization in Marketing

This specialized master's degree program provides the opportunity for students to develop knowledge and proficiency in the field of marketing while acquiring a useful understanding of the other major functional areas of business, the environment within which the firm operates, and the tools of analysis essential for making sound marketing decisions. This program allows students to have specific objectives and to broaden their employment opportunities in marketing and other business fields.

Students desiring a marketing emphasis should enroll in the M.B.A. program. The degree with specialization requires the completion of a minimum of 48 hours of graduate level courses including 15 hours of marketing courses. Students are required to take MKT 601 and 602, and select their elective courses (9 hours) in consultation with a marketing adviser from the following: MKT 603, 605, 607, 609, 611, 683.
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 a College of Education upper level application form.
2. Completion of a majority of Basic Studies.
3. Completion of a minimum 75 quarter hours.
4. An overall grade point ratio of 2.0
5. Additional criteria at the discretion of the admissions and selections committee (i.e. Health Center, Student Affairs, Speech and Hearing Clinic, etc.).

Handicapped Students — Application will be reviewed by the admissions committee. Acceptance of the application of the student will be determined by the following:
1. The judgment of the committee that the student will be able to carry out the duties of a teacher.
2. An assurance from the public schools that an internship contract will be offered.

Deadline: The student should initiate his application with the College of Education Central Advising Office (EDU 112) no later than the second week of the quarter in which he is eligible for admission.

**Admission to Supervised Teaching Experience**

A minimum of 12 credits of observation and supervised teaching in elementary or secondary schools is required. Time and sequence of the experience may vary among programs. (Refer to the specific program.)

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

Deadline: Application for student teaching should be made two quarters prior to term in which experience is desired. Forms and specific completion dates may be obtained in the student teaching office.

**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 in addition to internship 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 ........................................ 58 or 59 hours
- Professional Education Core .............................. 36 quarter hours
- Teaching Specialization .................................. 46 to 73 quarter hours

(*plus physical education requirements)*
Degree Validation and Certification Programs

VALIDATION

Baccalaureate and master’s degrees received from non-accredited schools which are listed in the Education Directory of the U.S. Department of Health, Education, and Welfare may be validated. Before beginning course work for validation, the degree holder must submit a planned program to the Central Advising Office in the College of Education. The program will consist of a minimum of 18 quarter hours. To validate a baccalaureate degree the 18 credits must be in upper division and/or graduate work with no grade below “C”. To validate a master’s degree the 18 credits must be in 600-level courses with no grade below “B”.

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.

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 (58 or 59 quarter hours)

Six areas of Basic Studies are required (by course work or waiver) plus the physical education requirements.

The six areas of Basic Studies shall be:

For students in Mental Retardation or any elementary program:

1. English
2. Behavioral Science
3. American Idea
4. Humanities
5. Biological Science or Physical Science
6. Math

For students in programs other than the above:

1. English
2. Behavioral Science
3. American Idea
4. Humanities
5. Biological Science or Physical Science
6. Math or Foreign Language or a second science sequence.
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 the student might profitably elect courses are: Foundations, Library, Reading, and Special 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

The program of elementary teacher education provides five quarters of continuous daily laboratory experiences in the public schools. A minimum of two hours daily is spent by the student in a variety of classroom situations. The continuous laboratory experience replaces the full quarter of internship and related aide assignments. Students entering this program must be eligible for admission to the College of Education (see admission requirements) and maintain a 2.0 average.

Program exceptions may be discussed with personnel in the Office of Advising of the College of Education.

(1) ELEMENTARY SPECIALIZATION

The major consists of an elementary specialization sequence.

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

Students are encouraged to choose a concentration in a subject taught in the elementary school. With careful planning, a student may receive dual certification in elementary education and a secondary education field.

(2) ELEMENTARY-EARLY CHILDHOOD

Students 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 50 hours of course work as follows: EDE 409, 413, 415, 417, 419, 425, 426, 431, 433, 529, 531 and EDE 440.

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) LIBRARY-AUDIOVISUAL-ELEMENTARY

Information on course work leading to dual certification in elementary and library education-audiovisual 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

The Art Education student may elect to emphasize painting, sculpture, graphics, ceramics, or photography/cinematography by selecting the appropriate courses.

The following courses constitute a program of study:

Art Education: EDA 377, 379, 411, 498
Studio Art: ART 201, 202, 301, 302, 401, 402, 421, 431, 441, 451 plus nine credits of studio electives.
Art History: ART 476 plus six credits of art history electives.
Fine Arts: FNA 543, 553
Music, Theater, or Dance: six credits from any two areas.

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

(2) PHYSICAL EDUCATION

A two-year program is offered at the junior and senior year level which provides a daily internship experience in the local schools for prospective physical education teachers. Students may enter this program only during the first quarter of each year and should be prepared to spend a minimum of two hours per day in a physical education teaching situation during each of the six quarters. The continuous field experience is in lieu of the usual quarter of full-day internship and the teacher aid assignments. Those requirements (see admission to supervised teaching experience) which are necessary for admission to the supervised teaching experience must be met before a student will be allowed to register in EDP 331, EDP 421, and EDP 431. Due to the uniqueness of this program, interested students should request a detailed description of the program in advance of enrolling.

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

The following are the required courses in the physical education program of study:


Courses in the coaching of athletics may be taken by all students, including physical education majors.

(3) LIBRARY-AUDIOVISUAL EDUCATION (MULTIMEDIA)

Dual certification in Library-Audiovisual Education and Elementary Education requirements include the Education professional core, the Elementary Education Program and a total of 36 quarter hours in Library-Audiovisual courses.

The required EDL courses meet Rank III certification in Library-audiovisual services, grades K-12. These courses are EDE 413, EDL 411, 412, 419,
513, 515, 517, 518, and choice of one of the following EDL electives: 514, 523, or 524. Field work is arranged at the need of the individual student.

(4) SPECIAL EDUCATION

Mental Retardation

A student may enter the Mental Retardation Program in order to prepare for becoming a teacher of the Mentally Retarded. This planned program provides for six quarters of course work in the major area of specialization and in the required elementary area as indicated below. Upon completion of this planned program, the student will be certified in the area of Intellectual Disabilities (K-12).

**Junior Year:** Quarter I — EDS 311, EDF 305, and two courses chosen from *Required Elementary Courses. Quarter II — EDS 329, 322, EDF 307, and one course to be chosen from *Required Elementary Courses. Quarter III — EDC 401, EDS 312, and two courses to be chosen from *Required Elementary Courses.

**Senior Year:** Quarter I — EDS 423 I & II, EDF 303, and one course to be chosen from *Required Elementary Courses or **Suggested Electives. Quarter II and Quarter III — Courses below to be taken in Blocks only as indicated. Blocks “A” and “B” are interchangeable in Quarter II and Quarter III. Block “A” — CBS 401, EDC 498, EDC 499. Block “B” — EDE 531, REH 502, EDS 531, and one course of **Suggested Electives.


**Suggested Electives: EDS 511, EDS 561.

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 301, 302, 311, 312, 313, 314, 511, 513, 571, 572, 573, 574, 575, 576, 577, 578, 579, or 675, 580, 589, 683; 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

Instrumental music students must take MUS 201, 202, 203, 301, 302, 303, 401, 402, 403; eight minor instruments outside the family of the student’s major instrument; 30 credits of Performance (MUS 204, 304, 404, 504), with a minimum of 4 credits of MUS 504; three credits each in theatre arts, visual arts, and dance courses; FNA 543, 553; EDM 431, 432, 433.

Vocal music students must take MUS 201, 202, 203, 301, 302, 303, 401, 402, 403; piano; 30 credits in Performance (MUS 204, 304, 404, 504), with a minimum of 4 credits of MUS 504; three credits each in theatre arts, visual arts, and dance courses; FNA 543, 553; EDM 435, 437, 439.

Special requirements for all music education majors: Placement examinations are required of all new registrants in musical styles (theory and history), and in performance, (completion of the examinations is required before registration in music courses is permitted); successful
completion of the piano proficiency requirement as defined by the music faculty before admittance to upper level; participation in a performing ensemble and the corresponding reading ensemble every quarter, excluding the internship quarter only; the presentation of one-half hour recital in the major performing medium during the senior year; attendance at on-campus musical events (i.e. student recitals, Music Forum events, faculty recital, and Artist Series concerts).

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 eight broad fields.

(1) CLASSICS AND ANCIENT STUDIES

Latin-English Education

CLS 301, 302, 303, 401, 402, 403, 411, 412, 413, 517, 571, and EDX 465; ENG 201, 203, 307, 312, or 305 or 306, 321 or 325, 411, 517, or 535, 585 (Theory of Fiction), SPE 201, and EDT 447.

Latin-Modern Foreign Language Education

CLS 301, 302, 303, 371, 401, 402, 403, 411, 412, 413, 517, 571, and EDX 465. In the modern foreign language a minimum of 26 quarter hours above the basic CBS courses are required. The required courses are: 203, 301, 303, 401, 403, 405, 406 (prefix determined by language selected), and EDX 449.

(2) ENGLISH AND ENGLISH RELATED PROGRAMS

English Education

ENG 201, 203, 307, 312 or 305 or 306, 321 or 325, 411, ENG 313 or 335 or 336 or CLS 351, ENG 517 or 535, 585 (Theory of Fiction), LIN 540 or COM 301, COM 300 or 351, SPE 201, 321, one 400 or 500 level English elective and one elective from English, Speech, Mass Communication, Theatre Arts, Language Literature Interdisciplinary, Philosophy, Classics and Ancient Studies, Education, American Studies and one of the following: EDR 509, EDT 531, or EDL 518. (Note: The internship is ordinarily a three-quarter continuous experience.)

English Education-Journalism

ENG 201, 203, 307, 312 or 305 or 306, 313 or 335 or 336 or CLS 351, 411, 517 or 535, 585 (Theory of Fiction), a 500 English elective, SPE 201 and 321 and COM 300, 330, 331, or 321, and 433 and EDT 463. (Note: The internship is ordinarily a three-quarter continuous experience.)

(3) FOREIGN LANGUAGES

Foreign Language-English Education

ENG 201, 203, 312 or 305 or 306, 313 or 335 or 336 or CLS 351, 321 or 325, 411, 517 or 535 and SPE 201. If an elective is needed, SPE 321 is recommended. A minimum of 36 quarter hours in a modern foreign language above the basic CBS courses is required. The required courses are 203, 301, 303, 401, 403, 405, and 406 (prefix determined by language selected), plus a minimum of
10 additional selected hours of advanced courses in the modern foreign language (ROM 517 and ROM 518 may be used in the selected hours), plus EDX 449 and EDT 447.

**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 35 upper level credit hours, and in the second language 26 upper level credit hours.

The required language courses are 203, 301, 303, 401, 403, 405, and 406 (prefix determined by language selected), plus a minimum of 10 additional selected hours of advanced courses in the major language.

**Single Foreign Language**

After consultation with adviser, the Dean may give permission for a student to elect a single foreign language major. A minimum of 45 quarter hours must be earned in the language beyond the basic studies requirements. Among the 45 quarter hours must be the following:

- French: FRE 203, 301, 303, 305, 401, 403, 405, 406, and 516.
- German: GER 203, 301, 303, 305, 401, 405, 406, and 516.
- Italian: ITA 203, 301, 303, 401, 405, and 406.
- Russian: RUS 203, 301, 303, 305, 401, 405, and 406.
- Spanish: SPA 203, 301, 303, 305, 401, 403, 405, 406, 516, and 561 or 562.

A native speaker must substitute a literature or a romance linguistics course for the first conversation course (203). Moreover, in cases where a native speaker has received his secondary and/or advanced education in his native country, he must substitute a literature or a romance linguistics course for the first composition course (301).

(4) **LIBRARY-AUDIOVISUAL EDUCATION WITH A SPECIALIZATION IN ENGLISH EDUCATION**

Candidates meet Rank III Library-Audiovisual requirements which certifies K-12 in school libraries. Candidates also meet the 36 hours required in the secondary English program.

Required Library-Audiovisual courses are EDL 411, 412, 419, 513, 514, 515, 517, 518 and EDC 481—Field Work in School Libraries. Electives may be chosen with consent of the adviser. Required English course are ENG 201, 203, 307, 312 or 305 or 306, 313 or 335 or 336 or CLS 351, 321 or 325, 411, 517 or 535 and SPE 201.

(5) **MATHEMATICS**

The typical program for prospective mathematics teachers consists of a minimum of 47 quarter hours in mathematics above the 100 level. The required courses are MTH 302, 303, 304, 305, 309, 323, 423, and 424. MTH 345 and 420 are strongly recommended. The student has the option of completing a divisional major with a concentration in mathematics. This requires a minimum of 36 quarter hours in mathematics and a minimum of 24 quarter hours in the Division of Natural Sciences outside of mathematics. 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.
(6) SCIENCE

A student planning to teach science at the secondary level should complete the departmental major in the corresponding science area. Requirements for these programs are listed in the catalog under the science departments of the Natural Science Division. EDN 427 is recommended for biology teachers, EDN 425 is recommended for physical science teachers.

An alternate program is available in which the prospective teacher must meet the minimum requirements of the Divisional Major in the Natural Sciences. This requires 36 quarter hours in the discipline of major concentration and 24 quarter hours within the Natural Science division outside the concentration area. These latter 24 hours must be approved by the student’s adviser and include at least one 300 level course. (Total program, 60 hours minimum.) Concentrations are available in biology, physics, and chemistry. A typical program for a divisional biology concentration includes BIO 201, 202, 203, 331 and 445 with BIO 351. Additional selections from BOT 302 or 311, BOT 421, ZOO 311 or 313, BIO 421.

Courses outside biology would normally include CHM 211, 212, 213, 331-2, 333-4.

(7) SPEECH-ENGLISH EDUCATION

Speech 201, 203, 321, 361 or 365, 491 and 492, two 5-hour upper division Speech Electives, TAR 303, ENG 201, 203, 307, 312 or 305 or 306, 313 or 335 or 336 or CLS 351, 321 or 325, 411, 517 or 535 and EDC 515.

(8) SOCIAL SCIENCE

To teach at the secondary level the minimum requirements of a Social Science divisional major must be met. All programs in the Social Science divisional major specify 64 credits or more in the Social Sciences. A teaching emphasis requires 24 credits in one discipline within an approved program that includes courses in at least four disciplines. The student will take courses which will lead to certification in the broad area of social sciences but may concentrate his studies in the specialized areas of History, political Science, or Geography.

The social science internship is a three-quarter continuous experience program where a candidate works part of each day in a school for three quarters. The program provides both junior high school and senior high school experience. The one-quarter internship may be taken only by permission of the chairman of social science education.

Social Science Programs

Social Science

ECN 201, ECN 202, GPY 301, GPY 302, HTY 100, HTY 211, HTY 212, HTY 231, HTY 232, POL 201, POL 203, SSI 361 and one of the following, SOC 261, SOC 331, SOC 341, SOC 541, SOC 543. Ten additional hours of upper level courses in the social science division are also required.

Social Science—History Emphasis

ECN 201, ECN 202, GPY 301, GPY 302, HTY 100, HTY 319, HTY 320, HTY 587, POL 201, POL 203, POL 331, SSI 361, and one of the following, SOC 261, SOC 331, SOC 341, SOC 541, SOC 543. Twelve hours of upper level History other than American are also required.
Social Science—American History Emphasis
AMS 301, ECN 202, GPY 301, GPY 302, HTY 100, HTY 211, HTY 212, HTY 587, POL 201, POL 203, or POL 453, POL 331 or POL 445. Three courses selected from three of the following five pairs of courses-1) HTY 301, HTY 302, 2) HTY 303, HTY 304, 3) HTY 315, HTY 316, 4) HTY 319, HTY 320, 5) HTY 411, HTY 412, and one of the following-SOC 261, SOC 331, SOC 341, SOC 541, SOC 543. Additional hours of any upper level courses in the Social Science Division are required to bring the total social science hours in the program to 64.

Social Science—Political Science Emphasis
ECN 201, ECN 202, GPY 301, GPY 302, HTY 211-212 or HTY 411-412, HTY 231-232 or HTY 251-252 or HTY 431-432, POL 201, POL 203, POL 331 or POL 338, POL 431 or 432, POL 461 or POL 462 or POL 463, SSI 361, and one of the following-SOC 261, SOC 331, SOC 341, SOC 541, SOC 543. Four additional hours of upper level Political Science courses are also required.

Social Science—Geography Emphasis
ANT 201, ECN 202, GPY 301, GPY 302, GPY 303, 371, 405, HTY 211-212 or HTY 411-412, HTY 231-232 or HTY 431-432, POL 201, POL 331, one of the following: SSI 341, SSI 343, SSI 345, SSI 347; and one of SOC 261, SOC 331, SOC 341, SOC 541, SOC 543.

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 AND OFFICE EDUCATION
To complete program requirements leading to Rank III certification in the broad field of Business Education, students must take 73 hours of course work in the business area and 36 hours of professional education courses. Requirements include ACC 201, 202, 203, ECN 201, 202, GBA 361, 371, EDV 141, 143, 251, 252, 351, 361, and 461. EDV 141 and 251 may be replaced with special permission by electives in general education or liberal arts (e.g., EDC 101, EDF 303, EDL 419, SPE 201). Two special methods courses are included 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 301-311-315. The remaining 30 hours will be in Distributive Education and approved electives, and must include EDV 407, EDV 506, EDG 401 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-TECHNICAL EDUCATION—(TBA)

Master of Arts Degree Program

ADMISSION
Candidates for admission for graduate study must present satisfactory evidence of:
1. Undergraduate grade point ratio on the last half of the B.A. of 3.0 (B) or better, or GRE-aptitude score-1000 minimum, or equivalent.
2. Receive favorable recommendation from program chairman.

FILING OF PROGRAM
During the first term of graduate study the candidate for the Master's degree must file a planned program of studies. This report of Graduate Advisory Conference is to be completed in consultation with the advisor. The completed report should be filed with the Coordinator of Graduate Studies in EDU 112.

QUALITY OF WORK
Candidates for a master's degree must maintain a 3.0 GPA. At the end of any term in which the student's GPA falls below the required minimum, the student will be placed on probation for a period of one term. If the GPA is below 3.0 at the end of the probationary term the student will be reclassified as "non-degree" and remain in that status until the GPA meets the required minimum.

A maximum of 12 quarter hours may be transferred from non-degree to degree seeking status.

RESIDENCY
The candidate for the master's degree will be required to meet the residency requirement established by each program area. Consult the appropriate program area for details.

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

PROCESS CORE EXAMINATION
Graduate students with sufficient undergraduate background may take the Process Core Examinations after consultation with their advisors. Successful performance on the examination enables a student to waive the course requirement, but he must take elective courses in lieu of the hours required. The Process Core Examinations are in the Foundations of Measurement, Psychological Foundations and Social Foundations of Education. Graduate students on a Plan II Master's Program are not eligible to take the Process Core Examinations unless they have a comparable course at the undergraduate level.
Plan I

A program of graduate studies designed for those with appropriate certification who desire to increase their competence in a subject specialization or receive professional preparation in one of the 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:

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<tr>
<th>Art Education</th>
<th>Mathematics Education</th>
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<td>Elementary Education</td>
<td>Music Education</td>
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<td>English Education</td>
<td>Physical Education</td>
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<td>Foreign Language</td>
<td>Reading Education</td>
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<td>Guidance</td>
<td>Science Education</td>
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<td>Humanities Education</td>
<td>Social Science Education</td>
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<tr>
<td>Library and Audiovisual</td>
<td>Speech Education</td>
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Special Education with programs in:

- Emotionally Disturbed
- Gifted
- Mentally Retarded
- Potentially Handicapped, N-3
- Speech Pathology

Vocational and Adult Education with programs in:

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<tr>
<th>Adult</th>
<th>Business and Office</th>
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<td>Distributive</td>
<td>Industrial-Technical</td>
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Junior College Teaching:

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<th>Astronomy</th>
<th>Geography</th>
<th>Physics</th>
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<td>Botany</td>
<td>Geology</td>
<td>Political Science</td>
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<td>Chemistry</td>
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<tr>
<td>Engineering*</td>
<td>Mathematics</td>
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<td>English</td>
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<td>Zoology</td>
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* Engineering bachelor's degree required.

Additional programs for Junior College teachers will be added to those listed as other instructional divisions 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.

PROGRAM DESCRIPTION

Master of arts degree programs consist of a minimum of 45 quarter hours, 24 hours of which must be at the 600 level. Most specialization areas include the option of a thesis of three to six credit hours.
Plan I

A. 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 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, Historical Foundations of American Education; or EDF 625, Philosophical Foundations of American Education.

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

C. SPECIALIZATION (27 hours minimum)

The following areas of specialization are suggested programs of study. Individual programs will vary depending on background, experience, and specific interest.

1) Art Education

In consultation with a graduate advisor, a student may develop a program in art education with a specialization in one of three areas:

a) Studio / new media
b) Art Administration, Supervision & Curriculum Innovation
c) Research Methods for Art Education

A portfolio or slides of recent creative work must be submitted prior to admission into the program. The departmental requirements for all degree seeking candidates are:

- Art Education 12 credits (EDA 660, 661, 682)
- Art Studio 12 credits (minimum)
- Art History 3 credits (minimum)

The remainder of the credits, totaling a minimum of 54, may relate to one of the three areas of specialization.

2) Elementary Education

This program requires full certification as an elementary education teacher for admission. 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: At least three courses must 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.
(3) English Education

Candidates 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 other equivalent certification. Students holding a Bachelor’s degree and qualified for Rank III English certification except for the required Education courses may enroll as non-degree seeking graduate students and complete certification requirements. After obtaining certification, they may transfer to degree-seeking status and apply up to 12 quarter hours of relevant work in Education on this degree. Plan I requires at least 32 hours of English as specified 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 for both plans: Process Core (16 hours), EDT 631, ENG 585 (Theory of Fiction), ENG 583 (Advanced Composition for Teachers), One advanced course in linguistics, depth preparation in two English areas (minimum of two courses in each) from among the following: 1) Old English-Middle English (to 1500); 2) Renaissance (1500-1660); 3) Restoration-Eighteenth Century (1660-1780); 4) Nineteenth Century British (1780-1890); 5) American Literature (to 1920); 6) Twentieth Century British (after 1890); 7) Stylistics. Plan II students also take EDC 501 and participate in a 12-hour internship which is required for certification but not for the degree.

(4) Foreign Language Education (French, German, or Spanish)

The candidate’s baccalaureate degree must be (1) in his chosen foreign language or (2) in foreign language education from an accredited institution of higher learning. Candidates must present a score of 460 or higher on the verbal portion of the Graduate record examination.

Each candidate will be assigned a major adviser in the College of Education and, to facilitate selection of the most appropriate foreign language courses, a co-adviser in the foreign language department of the College of Liberal Arts. Since identical lists of foreign language courses are not prescribed for all candidates, and since each candidate’s program is designed individually to satisfy individual needs, the specific foreign language courses are selected in consultation with advisers. Candidates should meet with both advisers before registering each quarter.

The M.A. in foreign language education requires a minimum of 27 quarter hours in 500 level and 600 level foreign language courses. Foreign language requirements, however, may go as high as 36 hours, depending upon the individual candidates’ background and strengths. Unless otherwise approved by adviser, at least 21 hours in French should be on the 600 level; in German at least 15 hours should be on the 600 level; in Spanish at least 18 hours should be on the 600 level.

(5) Guidance

The guidance program typically requires seventeen credits from the process Core including EDF 605, EDF 607, EDF 613, and one of the following: EDF 621, 623, or 625. Additional course requirements depend upon the major emphasis in either elementary school guidance or in secondary school guidance.

Elementary School Guidance Emphasis: Requirements in specialization
and related courses total 38 credits and include EDG 581, 603, 607, 611, 613, 617, 621, 625, 633, and PSY 433.

**Secondary School Guidance Emphasis:** Requirements in specialization and related courses total 39 credits and include EDG 581, 603, 607, 611, 619, 623, 627, 633, PSY 433, and an approved elective.

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

The Guidance Program has no full-time residency requirement. Students who are gainfully employed on a full-time basis are limited to one course per quarter. Exceptions are made only with permission of the Guidance Program Committee.

(6) 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. Up to nine hours may be substituted for the above from courses outside of Humanities with the consent of the adviser in Humanities.

(7) Library-Audiovisual (Media) Education

Basic courses are required for all students with a choice of specialization for work in one of the following programs: School Library—Audiovisual (Media); Public Library; Academic Library; Special Library.

The School Library—Audiovisual program also meets Rank II certification requirements for the State of Florida.

The minimum number of graduate course work hours required in all programs is 45. In extreme cases the maximum may range to 75. Thesis hours, when elected (4-6), are in addition to course work. This maximum is only for those people with no course work in Education or in Library—Audiovisual Education at the time they are admitted to the graduate program.

Required courses for students in all Library programs are EDL 600; EDL 601; EDL 513; EDL 515 (or their equivalents as determined by the Library—Audiovisual advisor) and one audiovisual course. If EDL 513, 515, 615 and the audiovisual course were taken at an undergraduate level, with the consent of the advisor, alternative courses may be chosen as substitutes.

Administration courses recommended for each specialization are: EDL 612 (for School Libraries); EDL 621 (for District or system School Media Centers); EDL 640 (for Public Libraries); EDL 650 (for Academic Libraries).

School Library—Audiovisual Certification requires courses in materials for children and in materials for young adults. Electives may be chosen from any of the other Library—Audiovisual courses. School Library—Audiovisual students are subject to the same core Education requirements and/or waivers as all other graduate education students.

Public, Academic and Special Library students are exempted from the Education core. Among recommended courses for them in lieu of the Education core are: EDF 502-Adolescence (Education); EDH 651-The Junior College in American Higher Education (Education); SSI 503-Contemporary American Culture (Liberal Arts).

With the consent of his advisor any student may choose one or more cognates from courses offered outside of the department.

Criteria for admission are those specified by the College of Education.
All students must take a comprehensive examination administered by the Library—Audiovisual Department before graduation. A Thesis or a Master's Essay may be chosen with the consent of and under the guidance of the graduate advisor. These are subject to the criteria determined by the University.

(8) Mathematics Education

This program requires a minimum of 51 quarter hours. Before the 12-hour level the student must demonstrate that he has the competence in mathematics to undertake the program. MTH 405, 406 and any MTH course from the 500 and 600 level and above may be included in the planned program.

(9) 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. Three plans are available to the candidate: 48 hours plus thesis, 51 hours plus 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, 603, 617, 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.

(10) Physical Education

Areas within the program in which a student may focus study are Elementary Physical Education, Secondary Physical Education, or Physical Education for the Handicapped.

Enrollment in EDP 600, Professional Assessment, is required of all students. Preferably this course will be completed during the first quarter of Study in the program and not later than the completion of eight quarter hours of credit in the physical education curriculum area.

(11) Reading Education

Specialization in Reading Education shall include a minimum of 36 hours selected from 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.) Suggested electives are ENG 517, EDÉ 611, EDE 531, EDS 571, EDS 574, EDS 676, EDC 661, PSY 613.

(12) Science Education

Concentration in Biology, Chemistry, or Physics are available in a cooperative program with the Natural Science division. In each instance before admission to the degree program the student must satisfy the Biology (Chemistry, Physics) adviser that he has the competence to undertake the program. Specialization shall consist of at least 27 quarter hours approved by the adviser in the discipline. Satisfactory completion of the program must be certified by both the Division of Natural Science and the College of Education.

A program with a concentration in Marine Science is available through
cooperation with the Marine Science Institute. Before admission to the program the student must satisfy the Director of the Marine Science Institute of his competence to undertake the program. Twenty-seven hours designated by the Marine Science adviser will constitute the minimum specialization. This will include at least two of the Oceanography courses. Satisfactory completion of the program must be certified by both the Marine Science Institute and the College of Education.

(13) Social Science Education

Advanced training for the purpose of becoming better teachers of social studies in grades 7 through 12.

Plan I

For students who are certified to teach secondary social studies or one of the separate subject areas of economics, geography, history, political science, or sociology.

Each student will select at least seven courses at the 500 or 600 level from anthropology, economics, geography, history, psychology, sociology, or social science (interdisciplinary). Three or more courses must be at the 600 level.

This part of the program will be individually designed in consultation with the adviser. Courses must be selected from at least four disciplines and no more than one half of the specialization may be in any one social science discipline.

(14) Special Education

The Emotionally Disturbed

The purpose of this program is to train educators for emotionally disturbed children. An individualized program is available under both Plan I, for certified and experienced teachers, and Plan II, for those with a non-education baccalaureate.

Plan I

Through a Plan I program, a certified, experienced teacher may satisfy the requirements for graduation within four quarters. Of the minimum 48 hours, at least 30 hours are allocated to the area of specialization. EDS 531, 610, 611, 632, 633, and 639, or equivalents, are required of all students. Additional courses, including electives, are planned jointly by the student and his adviser.

Plan II

The student with a non-education baccalaureate may meet initial certification requirements through a Plan II program. The individually designed course of study will include the minimum 30 hours in the area of specialization (as outlined above) plus such other courses planned jointly by the student and his adviser, which may be necessary to meet certification requirements in the student's chosen subject area. This program will require more than four quarters of attendance for completion.

The Gifted

The Gifted Child Teacher Training program provides advanced training for experienced teachers to work with gifted children and other teachers on a consultant or teacher-leader basis.

There is also an inexperienced teacher-training program which is designed
to prepare Liberal Art majors or education majors to work with classrooms of gifted children.

Emphasis is on the development of subject matter specialization and specific skills to:

1. identify the gifted,
2. make an individual diagnosis of cognitive and affective strengths and weaknesses, and
3. modify the educational program to develop the gifted child’s potential.

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, and EDC 552.

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; and EDC 552.

Mental Retardation

The course of study is designed to prepare the student to become a more effective teacher or supervisor of teachers for the retarded.

It is highly recommended by the Department of Mental Retardation that any student who is about to apply for Graduate work in the area of Mental Retardation contact that office for advising purposes before any courses are taken or application made for admission.

Plan I

Through a Plan I Program, a certified teacher may satisfy the requirements for graduation within four quarters.

Process Core Requirements (16 hours).

At least 30 hours are allocated to the area of specialization with an emphasis on Mental Retardation — Required: EDS 620, 621, 622, (12 hours) and Written Comprehensive Examination. Select 18 hours from the following: EDS 529, 531, 541, 511, 550, 560, 561, 562, or 676.

Plan II

The student with a non-education baccalaureate may meet initial certification requirements through a Plan II Program as follows:

(1) Basic Elementary Required: EDE 409, EDS 322, EDS 423 I.

   EDS 423 I may be counted for Master Credit.

(2) Process Core Required (16 hours).
(3) Required Courses in Mental Retardation: (38 hours)
   EDC 501, EDC 691, EDS 610, 620, 621, 622, 676, 529.
(4) Electives: (Select eight hours)
   EDS 611, 613, 531, 541, 550, 560, 561, 562.
(5) Written Comprehensive Examination.

**Potentially Handicapped: Varying Exceptionalities**

The course of study is planned for advanced training to prepare teachers and supervisors of teachers of Varying Exceptionalities.

**Plan I**

A minimum of 30 quarter hours in the area of specialization is requisite to successful completion of the Plan I program for teachers of Varying Exceptionalities. Individualized program will include courses to be taken from the following: EDS 531, 541, 550, 551, 610, 611, 612, 620, 622, 632, 649, 676, and PSY 613. Additional courses, including electives, are planned jointly by the student and his advisor.

**Plan II**

Individuals with a non-education baccalaureate may prepare for the teaching of Varying Exceptionalities through Plan II. Ordinarily, it will take more than one academic year to complete the Program. Individually designed course of study will include a minimum of 30 credit hours selected from special education courses with an emphasis on Varying Exceptionalities.

**Speech Pathology**

A five-year program terminating in an M.A. in Special Education: Speech Pathology is available to undergraduate students. See Undergraduate Section. 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.

**Vocational and Adult Education**

**Adult Education**

1) In consultation with the graduate advisor, a program will be planned which will include a minimum of 45 quarter hours. Specialization requirements of 27 quarter hours in Adult Education are designed to provide competencies in organization and administration, supervision, adult learning characteristics, curriculum development, program planning, methods of teaching and research techniques as each of these relate to adult education programs. Generally, specialization courses will be selected from the following, depending upon the individuals background of experience: EDV 445, 503, 506, 631, 661, 671, and 687.
2) Requirements in a related area may include a concentration of courses in one of the following areas: psychology, sociology, guidance, administration, complementary basic, or a vocational field.

**Business and Office Education**

1) Appropriate College of Business Administration courses in accounting, economics, business law, business communications, finance, management, marketing, and office administration (22 quarter hours maximum). Any deficiencies in basic business courses needed for business teacher certification or deficiencies in the functional business administration courses must be included in the Master's candidate's program.

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

3) Selective courses from which to choose in Vocational and Adult Education—EDV 407, 511, 431, 445, 480, 503, 504, 506, 621, 641, 651, 661, 671.

4) Selected courses in one related area such as Guidance, Special Education, Business Administration, Junior College, Administration or Supervision (4-12 quarter hours).

**Distributive Education**

1) Appropriate College of Business Administration courses in accounting, economics, finance, management, marketing, and office administration (22 quarter hours maximum).

2) Distributive Education—minimum of 12 quarter 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, Junior College, Administration or Supervision (4-12 quarter hours).

**Industrial-Technical 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. Courses totaling a minimum of 45 quarter hours will be a part of the student's program which he will plan with the graduate advisor for industrial education.

Related electives (0-16 quarter hours). See areas of specialization listed above. The Plan II program in Vocational and Adult Education is designed primarily for non-certificated teachers. The candidate is required to complete additional professional education courses—usually EDC 501 and EDC 691, which are in excess of the normal Process Core requirements. A student will be advised of other courses which he must complete. Master's Degree candidates wishing to be certificated must meet the state's minimum certification requirements in the area of specialization.

**Plan II**

The program outlined below is designed for the person who has completed a bachelor's degree 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.

A. PROCESS CORE (21 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, Historical Foundations of American Education; or
EDF 625, Philosophical Foundations of American Education.

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

C. SPECIALIZATION (minimum 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.

D. INTERSHIP (9 hours)

Enrollment will be in EDC 691 which involves planned observation and supervision by a member of the University faculty and a secondary school staff member. In-service teachers are required to complete this assignment over two quarters.

Junior College Program

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 Colleges of Business, Engineering, and Liberal Arts, has formulated the program.

The Junior College programs include:

- Astronomy
- Botany
- Chemistry
- Engineering*
- English
- French
- Geography
- Geology
- History
- Mathematics
- Microbiology
- Physics
- Political Science
- Psychology
- Sociology
- Spanish
- Speech
- Zoology

* Engineering bachelor's degree required.

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 joint responsibility of the two colleges. Admission to the program requires the
minimum score of 1000 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 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 adviser will be assigned by the departmental chairman of the student's substantive field. The two will constitute the student's inter-college 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 graduation.

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 adviser. 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.

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 advisers deem it to be desirable.

Ed. S. Program

The Education Specialist (Ed.S.) program has been developed to provide for the new state-approved Rank 1-A certificate.
Ph. D. Program
PRE-SECONDARY EDUCATION

This concentration in the Ph.D. program will prepare Early Childhood and Elementary Education specialists in a variety of sub-specialties. Presently offered are programs in Early Childhood education, Reading and Language Arts, Mathematics education, Special Education, and Urban Research.

The Urban Research program will provide preparation for a variety of tasks in public school research centers and in higher education. Candidates will have breadth of preparation necessary to apply techniques from the social disciplines which are relevant to the complex needs of urban education. The candidates will be members of task-oriented seminars studying inner-city problems of the Tampa Bay area. The three-year post-master's sequence will require a one-year internship as a member of the research staff.
College of ENGINEERING

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 Master of Science in Engineering. Others 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 five-year 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.

**Other Program Information**

The College of Engineering offers several degree programs and service minors which are designed to meet the needs of business, industry and the academic community. A more detailed description of the programs can be found under the title of Applied Science and Technology later in this section of the catalog. Present offerings include:
- Computer Languages
- Computer Science Minors-Senior and Graduate
- Bachelor of Engineering Technology

**General Engineering 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 the 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 the five-year 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.

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).

Engineering Advising

Freshman and sophomore engineering students as well as prospective engineering students should contact the Chairman of Engineering Advising, 974-2528, for the assignment of an adviser.

All students admitted to upper division status will be assigned an adviser at the time of their admission. 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.

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. Basic course work is offered in Engineering Graphics and Engineering Analysis. The chairman of pre-engineering serves as chairman of the undergraduate advising and registration committee. This department does not offer a degree program.
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 AND MECHANICAL DESIGN
This department offers upper level and graduate instruction pertinent to the analysis and design of machines and systems needed by our modern society. In addition to courses dealing with the classical Mechanical Engineering subjects of lubrication, vibration and fatigue analysis, machine design, thermodynamics, heat transfer, environmental control and power systems, it provides instruction in other fields of increasing importance to the engineers of the future. Some of these fields are computer simulation, instrumentation, automatic control, power utilization, acoustics, chemical and nuclear engineering.

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 manufacturing plants to service industries. Such topics as plant facilities design, production control, measurement and methods design, economic evaluation, etc. are studied along with computers, operation research and statistical techniques. Industrial 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 Engineering Admission
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 basic engineering course work requirements in order to complete their professional program or baccalaureate in minimum time.
Engineering Core and Specialization

Both the four-year and the five-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 two of CBS 308-315-316, and nine quarter hours of Behavioral Science, Biological Science, or a foreign language. Freshmen and sophomores 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. Basic Physical Education requirements must also be completed.

   Mathematics and Science Core Requirements (49 quarter hours minimum)
   
   The student must take MTH 302, 303, 304; CHM 211, 212, 213; PHY 301, 302, 303, 304, 305, 306. 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)
   
   The prospective engineering major must take EGB 101, 102, 203, 231, 232, 311, 312, 313, 321, 322, 325, 337, 340, 341, 342, 343.

   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. See later section relative to master's program for additional information.

Other Requirements for Engineers

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 student’s junior and senior years.

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 no completing their professional master's requirements may elect to request the awarding of the bachelor degree.

Engineering Master's Degree Programs

The College of Engineering offers three programs leading to a degree at the master's level. These are the post-baccalaureate Master of Science in Engineering program, Master of Engineering Program, and the Engineering Five-Year Master of Science Program. Each upper level department may elect to award one of these degrees depending upon prior arrangements with the student. Admission to the Master's program is dependent upon a favorable evaluation by the department concerned. Applicants are expected to meet the minimum requirements outlined below and in addition any special requirements specified by the departments and reported to the Dean of the College. Other requirements may be considered.

Post-Baccalaureate Master of Science in Engineering

This graduate program of the College is designed for those students wishing advanced study which is research or design oriented.

ENTRANCE REQUIREMENTS

1. A baccalaureate degree in engineering from an approved institution is required. Degrees in Mathematics, Physics, Chemistry and other fields may be accepted on an individual basis to meet this requirement. In such cases it is probable that remedial work in engineering will be necessary.

2. A minimum total score of 1000 on the verbal and quantitative portions of the Graduate Record Exam is expected.

3. A minimum grade point average of 3.0 out of a possible 4.0 for all work attempted during the last two years of undergraduate work is required.
4. Those who do not meet the regular entrance requirements may attempt a trial program as non-degree seeking students. Up to 12 hours of work attempted on this basis may be accepted into a graduate program upon satisfactory completion. Before attempting such a trial program the student should determine from his departmental adviser a list of courses and performance criteria for his admission.

PROGRAM REQUIREMENTS

1. A minimum of 45 credits of approved course work is required.
2. An overall grade point average of 3.0 is required for all work attempted in the program. No grade below "C" may be accepted in a graduate program. In the event that a student's average drops below 3.0 he will be placed on a probationary status and must obtain a directed program from his adviser approved by the Dean, prior to continuing his course work toward the degree.
3. All students are required to pass a final comprehensive examination which may be written and oral prior to awarding the degree. These examinations are arranged and administered by the student's graduate committee.
4. Students in this program must complete a design or research project on which up to 9 credits may be used to fulfill his degree requirements. The course 699 with the appropriate departmental prefix is to be used for this purpose.
5. If a thesis is submitted it must be in accordance with the Handbook for Graduate Theses and Dissertations, University Graduate Council. For design projects a comprehensive report must be filed with the Office of the Dean of Engineering following where practical the guidelines of the handbook.

The students working on design and research projects must register for a minimum of 3 credits of course 599 or 699 with the appropriate departmental prefix during each quarter he uses the facilities and laboratories of the College whether or not he has accumulated the maximum credit allowed for research or design toward his degree. All students must register for 3 credits of course 698 or 699 with the appropriate departmental prefix during the quarter in which they apply for the master's degree.

Master of Engineering Program

This program is designed primarily to meet the needs of engineers actively engaged in the profession who wish to pursue graduate study at the master's level.

ENTRANCE REQUIREMENTS

Entrance requirements for the Master of Engineering program are the same as those for the post-baccalaureate Master of Science in Engineering program. It is usually expected that those applying to this program will be experienced or actively engaged in the engineering profession.

PROGRAM REQUIREMENTS

1. A minimum of 45 credits of approved course work is required.
2. Students must maintain overall grade point average of 3.0 out of a possible 4.0. No grade below "C" will be accepted in a graduate program. In the event that a student's average falls below 3.0 he will be placed on
probationary status and must obtain a directed program from his advisor and approved by the Dean prior to continuing further course work toward the degree.

3. All students are required to pass a final comprehensive examination which may be written or oral prior to awarding the degree. These examinations are arranged and administered by the student's department.

4. Students in this program must register for 3 credits of course 698 with the appropriate departmental prefix during the quarter in which they apply for the degree. This will be used as preparation for and administration of the final examination. This credit may not be used as part of the course work requirement.

The Engineering Five-Year Master's Degree Program

This program consists of a minimum of 246 credits of course work and results in concurrent awards of the Bachelor of Science and Master of Science in Engineering degrees. Unlike traditional master's programs following the baccalaureate degree, in this program both the fourth and fifth years are open to graduate level study and additional calendar time is available for research or design projects.

ENTRANCE REQUIREMENTS

1. Students who have senior standing (135 credits) with at least 24 credits completed at the University of South Florida in the engineering curriculum may apply for admission to the Five-Year Program.

2. A minimum total score of 1000 on the verbal and quantitative portions of the Graduate Record Examination is expected.

3. Above-average performance in the engineering program is expected.

PROGRAM REQUIREMENTS

1. A minimum of 246 credits of approved course work must be compiled. Of this total 152 credits must comprise the engineering central core with an additional 94 credits of specialization. A maximum of 18 credits may be allowed for design and research.

2. Students admitted to the five-year program are expected to maintain a superior level of academic performance. A 3.0 out of a possible 4.0 grade point average is expected on the courses in the student's graduate course of study. In the event that a student in the Five-Year Program fails to maintain the required academic standards, he will be placed on probation. Failure to comply with the terms of the probation will result in the student being dropped from the program.

3. Students in this program must complete a design or research project for which up to 9 credits of course 699 and up to 9 credits of course 599, with the appropriate departmental prefix, may be used to fulfill their degree requirements.

4. If a thesis is submitted it must be in accordance with the Handbook for Graduate Theses and Dissertations, University Graduate Council. For design projects a comprehensive report must be filed with the office of the Dean of Engineering, following where practical the guidelines of the handbook.

5. All students are required to pass a final comprehensive examination which may be both written and oral prior to awarding the degree. These examinations are arranged and administered by the student's graduate committee.
When a student is working on a design or research project he must register for a minimum of three credits of course 699 or 599 with the appropriate departmental prefix, each quarter he uses the facilities and laboratories of the College whether or not he has accumulated the maximum credit allowed for research and design toward his degree. All students must register for three credits of 698 or 699 during the quarter in which they apply for the master’s degree.

**Applied Science and Technology**

A series of courses and several degree programs are offered by the College of Engineering with are designed for students who do not wish to pursue degree programs in engineering but who wish to obtain a technical background coupled with other interests.

**Computer Service Courses**

Recognizing that the general purpose digital computer has made significant contributions to the advancement of all elements of the academic community and that it will have an 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 colleges in order that they may be prepared to meet the computer challenge.

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

In order that the students may derive maximum benefit from the courses, according to their interests, the courses are further divided into two groups: (1) those courses of general interest to a wide variety of disciplines; and (2) those courses of particular interest to students in engineering and the physical sciences.

The service courses available for the non-engineering students include ESC 301, 302, 303, 304, 310, 311, 312, 501, 502 and 503. The courses designed for the engineering and physical science students include EGB 231, 232, EGS 423, 424, 425, 427, 533, 620, 621 and 622.

**Bachelor of Engineering Technology**

The College of Engineering has been authorized by the Board of Regents to initiate an experimental program leading to the degree, Bachelor of Engineering Technology. This program provides for a two-year (90 quarter hour) educational experience for students who have completed their Associate of Science Certificates in an engineering technological specialty from one of the programs of the State System of junior colleges.

The 90-quarter-hour University program relies entirely upon the course work and technical competency of the junior college to provide the basic information in the particular area of specialization. It is the primary purpose of this program to provide a broad educational base in the understanding of technol-
ogy, management, and the basic studies rather than to attempt to further develop a high degree of specialization. It should be noted by prospective students that this program is not intended to be an engineering degree program, rather, its function is to bridge the gap between the design or research engineer, the technician, and management. Students graduating in this program will have both their University degree and their transcript annotated as to the institution from which their technical training was received as well as their technical specialization as designated by that institution.

This two-year, post-Associate of Science program is comprised of a minimum of 30 quarter hours of Basic Studies, 30 quarter hours of Technology, and 30 quarter hours of Management or non-technical elective course work. Initially, the technical portion of the program will have a strong emphasis in the Computer Science area.

1. ADMISSION

In general, students are expected to have attained a “B” average performance on their technical junior college course work and have at least 300 on their senior high placement test scores. A regular application for admission should be filed with the Office of Admissions and that application should be clearly identified as “Engineering Technology.” As this program has unique transfer requirements, a special application must also be submitted and is available from:

Coordinator of Engineering and Technology
USF St. Petersburg Campus
830 First Street South
St. Petersburg, Florida 33701

2. LOCATION

The course work for this program will be operated primarily at the University of South Florida St. Petersburg campus although on occasion certain course work may be offered on the Tampa campus. It should be noted that the St. Petersburg campus does not have dormitory facilities and students must arrange to live off campus. The Center Administrator of the St. Petersburg campus will assist where possible in locating housing.
The College of Liberal Arts, as one of the seven 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 credits. Unqualified admission requires six of the eight areas of Basic Studies (including English), four Physical Education courses completed, and a total of 90 credits or more. (A grade point ratio of 2.0 is expected in both instances.) Occasionally students may be admitted without the 2.0 average but 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 for 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 credits (plus 4 credits or equivalent in Physical Education) 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 six areas fulfilled in the College of Basic Studies (or transferred equivalents), including CBS 101-102 (Freshman English), plus CBS 401 (the Basic Studies Senior Seminar). 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 academic credits outside his discipline of concentration, including at least 24 Liberal Arts credits outside the division of the major. In meeting this 24 credit requirement, work must be distributed with no more than 8 counting from a single department.

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 any previous college work.)

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

6. Completion of a senior appraisal is required. This is administered free to graduating seniors each quarter.

**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, Language-Literature, Natural Sciences and Mathematics, and Social Sciences. 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. Note also the special programs below.

**HONORS PROGRAM**

The College of Liberal Arts offers a special program for superior students which will enable them to participate in special seminars emphasizing independent work and creativity.

Students participating in the honors program are expected to take honors seminars offered by the College and by their division in addition to the honors courses designated by their major department. Students may volunteer or be nominated by faculty members, after which a screening committee will select those to participate. Further information is available from the office of the Dean of the College of Liberal Arts.

**OFF-CAMPUS TERM PROGRAM**

The Liberal Arts college offers a program of study whereby all students are encouraged to spend at least one quarter engaged in personal educational pursuits away from the University campus. Students are offered a wide variety of opportunities which include jobs and internships, humanitarian action programs, foreign study-travel, independent research-study, and a variety of "self-initiated" programs designed to meet the individual needs of each student. An unusual amount of flexibility is possible in the planning of each program to ensure maximum relevance to student educational and life interests.

The full resources of the College of Liberal Arts, with special assistance from the International Studies and Cooperative Education programs are available to assist the student in his planning. Detailed information is available in DES 124.

Credit may be earned for independent study related to the program and may also be earned by taking the field course, OCT 401: Community Interaction, described on page 267. For further information, contact the OCT office or your major adviser.

**TESTING PROGRAM**

As part of its effort to render service to individual students, the College is developing a testing program whereby students may be measured with respect to academic attainment, vocational interest and educational outlook. The scores from these tests will help the student to compare himself with students on this campus and across the nation and make wiser judgments concerning his future plans.

**CURRICULA AND PROGRAMS**

**Opportunities for Concentration**

The College of Liberal Arts offers a major in 24 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.

**DIVISIONAL MAJORS**

In addition to the 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, the Afro-American Studies program, the Religious Studies program, and the Bachelor of Independent Studies program.

LIBERAL ARTS MAJOR

The College offers a Liberal Arts major for students who wish a broad program tailored to their particular interests and not falling naturally into one of the departments or divisions. The major may have a pre-professional purpose or it may simply serve a student’s desire to become better acquainted with himself and the world.

Persons interested in the Liberal Arts major should see the Dean of the College for admission and assignment to an adviser, and they should write out for approval a statement of the purposes underlying their proposed program and the combination of courses they deem most relevant. This should be done as early as possible and at least before earning 135 credits.

All the College rules for the B.A. degree apply likewise to this major: 180 credits with at least a C average, Basic Studies requirements fulfilled, at least 60 credits at the upper level (300 and above) and 24 Liberal Arts credits outside the division of greatest concentration. There must be at least 20 credits with a C average in one department to assure some anchorage in one field.

College-Wide Programs

AFRO-AMERICAN STUDIES

The major in Afro-American Studies seeks to extend knowledge of the Black experience as seen from the perspective of those who are a part of it, to provide instruction and facilities for specialized training and research into the various aspects of that experience, and to help realize the Afro-American’s quest for identity with honor. The program provides an interdisciplinary focus which transcends departmental divisions. At the same time, the program recognizes the need for all people to acquire the intellectual tools and skills that are prerequisite for the building of social consciousness and creative lives.

The major consists of 56 hours, 28 of which must come from the core (AFA 130, 261-262, 302, 410, 481) and the remainder from the other three areas of the program: African studies, political and social issues, and humanistic studies. A close contact with the Black community of Tampa is an integral part of the program and each student is expected to participate fully in community activities.

It is required that each student pursuing this major will devote at least four hours to AFA 481 (Research and Field Studies) and present a senior paper to the faculty of Afro-American Studies on this work.

Each student’s program must be planned with the Afro-American Studies advisor who may make appropriate substitutions when he deems these educationally advisable. Students desiring to enter this program should contact the Coordinator of Afro-American Studies for a full listing of courses offered.

LEISURE STUDIES

The Center for Studies of Leisure explores the functions of leisure as a major manifestation of technology, particularly as related to changing social institutions and values. Its program is virtually unique among the universities
of America and is developed through field research, conferences, workshops, consultations, correspondence, lectures, publications, and seminars.

While its basis for field research is the West Central area of Florida, the Center has sponsored two major international conferences on campus and has participated in several conferences overseas working with other leaders in the field. Present research projects include studies in the arts, public recreation, military retirement, and the use of libraries. A newsletter is published several times a year.

In cooperation with other departments of the College, the Center offers courses to develop understanding and leadership in the field of leisure activity and plans are underway for instituting a graduate program in the field. For further information, consult with the director of the program.

**BACHELOR OF INDEPENDENT STUDIES**

The College offers a BIS Degree to adults 25 years of age or over who are seeking a liberal education but who are unable to attend regularly scheduled courses. The program is offered in collaboration with the Center for Continuing Education and is described in detail under Academic Programs (page 54).

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

**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**

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

Dance majors are required to take DAN 201, 202, 203, 301 (six credits), 302 (six credits), 303, 311 (three credits), 313, 401 (nine credits), 403, 413, 501 (nine credits), 503, 513, for a total of 60 hours.

Senior dance majors are required to choreograph and perform in a senior dance program.

For advanced placement, prospective students must contact the dance office (TAR 233) to arrange for an audition prior to registration.

Additionally, 15 credits are required consisting of: 9 credits in Visual Arts, Music and Theatre and 3 credits each of FNA 543 and FNA 553. Three to six
credits of FNA 443 and/or 3, 6 or 9 credits of FNA 453 may be substituted for the Fine Arts departmental 9-credit requirement. Please refer to page 105 for additional requirements.

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 artists, college- or studio-teachers.

Requirements for the B.A. Degree:

A total of 60 quarter hours is required, distributed as follows: 24 in Musical Styles (MUS 201, 202, 203, 301, 302, 303, 401, 402, 403), 33 in Performance (MUS 204, 304, 404, 504—a maximum of three quarters at each level counted toward graduation), and three in Studio Teaching (MUS 505). Additionally required are 15 quarter hours consisting of: nine in ART, DAN, and TAR courses and three in each of FNA 543 and FNA 553. Three to six credits in FNA 433 and/or three, six, or nine credits in FNA 453 may be substituted for the nine-credit Fine Arts requirement in ART, DAN, and TAR courses. Please refer to page 105 for other general graduation requirements.

All new registrants are required to take placement examinations in musical styles (theory and history) and in performance. 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 degree in music are required (1) to complete successfully the secondary piano requirement as defined by the music faculty, (2) to attend a prescribed number of representative on-campus music events (i.e. student recitals, Music Forum events, faculty recitals, and Artist Series concerts) as well as significant off-campus musical events, and (3) to present a faculty-approved public recital before graduation.

Requirements for the M.M. Degree:

General requirements for graduate work are given on page 151. In addition, the applicant will need to satisfy the following requirements in music before initial registration: (1) Performance 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 adviser in conformance with the guidelines established by the Graduate Music Committee made up of music arts and music education faculty members.

A minimum of 54 credits is required, and the student must be registered as a full-time student for a minimum of one quarter. The typical program for a performance major consists of: 16 credits in 600-level performance courses, a three-credit Recital, four credits in Graduate Ensemble, two credits in Graduate Seminar, and 29 credits in elective courses to be selected with the student’s assigned advisor.

Programs for Teacher Education:

For the bachelor of arts degree for those preparing to become public school music teachers, see Education. For the master of arts degree for those preparing to become public school music teachers, see page 85.

THEATRE ARTS

All students will take TAR 203, 211, 221, 252, 339, 443, 471, 501 and
502, plus any two of the Theatre Literature courses. 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 322, 429, 421, 423, 425, 529, choice of one of TAR 422, 424, 426, plus 6 hours elected in the discipline; 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 60 hours. Theory majors: TAR 311, 313, one beginning design course, four remaining Theatre Literature courses; for a total of 54 hours, plus an additional 12 hours of English electives selected from ENG 411, 426, 503, 519, 520, 559.

Additionally, 15 credits are required consisting of: 9 credits in Dance, Music and Visual Arts and 3 credits each of FNA 543 and FNA 553. Three to 6 credits of FNA 443 and/or FNA 453 may be substituted for the Fine Arts departmental 9-credit requirement.

Please refer to page 105 for graduation requirements.

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, photography, cinematography, drawing 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 (ART 501 may be substituted for one of the 400-level studio courses with the exception of ART 401 and ART 402); 12 credits in art history; 15 credits of the area to be emphasized: painting, sculpture, graphics, ceramics, photography, cinematography or drawing. Additionally, 15 credits are required consisting of: 9 credits in Dance, Music and Theatre and 3 credits each of FNA 543 and FNA 553. Three to 6 credits of FNA 443 and/or 3, 6 or 9 credits of FNA 453 may be substituted for the Fine Arts departmental 9-credit requirement. A typical sequence for the art history major would be ART 201, 202, 301, 302, 401, 402 and one advanced studio course; 39 credits to be divided as follows: 6 courses from the ART 470-477 sequence; 6 courses at the 500-level (ART 570 and/or ART 581); 3 hours in ART 573. The Department also requires of its art history majors a foreign language reading proficiency. German or French are especially recommended. Please refer to page 105 for additional graduation requirements.

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 151-53. 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, photography 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 Language and Literature offers courses in American Studies (AMS), Classics and Ancient Studies (CLS), English (ENG), Modern Languages (FRE, GER, ITA, POR, ROM, RUS and SPA), Linguistics (LIN), Mass Communications (COM), Philosophy (PHI), Religious Studies (REL), Speech (SPE), and Interdisciplinary Language-Literature subjects (LLI).

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

Six Master of Arts programs are also available: English, French, Linguistics, Philosophy, 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, 303, and 304 (or the counterpart in transfer work) 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: ENG 305, HTY 411, HTY 421, HUM 535 or PHI 413; 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: AMS 383, AMS 483, ANT 303, COM 301, ENG 306, ENG 307, ENG 425, ENG 426, ENG 517, ENG 527, ENG 528, EDF 575, HTY 301, HTY 302, HTY 315, HTY 316, HTY 409, HTY 410, HTY 412, HTY 422, HUM 536, HUM 537, PHI 413, POL 201, POL 431, POL 432, POL 441, POL 445, POL 455, POL 463, POL 540, SOC 201, SOC 261, SOC 341, SOC 371, SOC 563, SPE 345 and SSI 503. Descriptions of these courses may be found under the appropriate departmental course descriptions.

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 431-432; PHI 333, 415; REL 350.

For a combination major of Latin with a modern foreign language see page 114 under combined majors, MODERN 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 325, ENG 335, ENG 336, ENG 337, ENG 437, ENG 459 and ENG 511; two of the following: ENG 429, ENG 500, ENG 501, ENG 502, ENG 503, ENG 504, ENG 505, ENG 506, ENG 507, ENG 508, 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 415, ENG 416, 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.

For the description of the combined major in English and Linguistics, refer to the Linguistics section of the catalog on page 115.

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 28 hours of literature in English above the freshman level, and a score of at least 600 on the Verbal Aptitude Test of the Graduate Record Examination and a total GRE score of at least 1000. All applications must be approved by the Graduate Committee of the Department of English.

Course Work. A master of arts degree in English requires 45 hours of course work from the following list of English courses: ENG 691; two ENG 683 courses; ENG 623 (or the bibliography test); ENG 531 (unless the student has taken a literary criticism course as an undergraduate); and any one of the following courses—ENG 515, ENG 517, ENG 518, ENG 535, LIN 540, or LIN 541 (unless the student has taken a linguistics or English language course as an undergraduate). All courses to be counted for the M.A. must be at the 600 level, except ENG 531 and a 500-level linguistics or language course. Each student is required to write a directed critical or analytical paper carrying one hour of credit (ENG 681). Students may substitute up to eight hours of courses acceptable for graduate credit in related areas, subject to approval by the Graduate Committee of the Department of English. A stu-
dent may not count toward his degree more than eight hours of ENG 683 or more than four hours of ENG 691.

Other Requirements. 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. They 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 most often needed by the junior college teacher: composition, language, literature in English, and world literature in translation. Courses in English: ENG 583, Advanced Composition for Teachers; ENG 601, Problems in College English Instruction: Composition; any one of the following courses the student has not taken previously—ENG 517, ENG 535, LIN 540, LIN 541; one course in English literature 1500-1660; one course in English literature 1660-1780; one course in English literature 1780-1890; one course in American literature; one course in twentieth-century literature; ENG 683, Selected Topics in English Studies (world literature). All literature courses must be taken at the 600 level. Courses in the College of Education: EDR 509, EDH 651, EDH 653, and EDC 691 (internship if required).

Foreign language requirements. None.

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

MODERN LANGUAGES

Instruction is provided in French, German, Italian, Portuguese, Romance Philology, Russian, and Spanish. Instruction in less commonly-taught languages such as Hindi and Japanese, and 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 its 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 intermediate language courses. Among these 45 credits must be the following:

FRENCH: FRE 203, 301, 303, 305, 401, 403, 405, 406, and 516.
GERMAN: GER 203, 301, 303, 305, 401, 405, 406, and 516.
ITALIAN: ITA 203, 301, 303, 305, 401, 405, and 406.
RUSSIAN: RUS 203, 301, 303, 305, 401, 405, and 406.
SPANISH: SPA 203, 301, 303, 305, 401, 403, 405, 406, 516, and 561 or 562.

A native speaker must substitute another course for the first conversation course (203). Courses in translation may not be applied to the major.
Combined Majors

Combined majors are offered in any two modern languages or in Latin and a modern language, or in languages and linguistics. For a major in two modern languages, a student must take the courses required for the major in his first language and 301, 303, 305 and 401 in his second language. Students majoring in Latin and a modern language must take CLS 301, 302, 303, 371, 401-402-403, 517 and 571; and courses numbered 301, 303, 305, 401, 405 and 406 in the modern language. For a description of the combined major in Foreign Languages and Linguistics, refer to page 116.

Requirements for the M.A. Degree in French:

General requirements for graduate work are given on pages 151-53.

For admission to the M.A. program in French, a student must have previously taken the following French courses or their equivalent: FRE 303, 401, 403, 405, and 406.

For a master’s degree in French, the following are required:

1) 45 credit hours in French courses, or:
   31-35 hours in French courses, plus 10-14 hours graduate-level work in a second field approved by the student’s supervisory committee. Of the required work in French, FRE 601 and 689 and at least 12 additional hours must be at the 600 level.

2) Reading knowledge of a second foreign language approved by the student’s supervisory committee.

3) A written comprehensive examination, based upon a reading list provided by the department, on French language and literature. A portion of the comprehensive examination must be written in French.

4) A thesis or thesis-type paper, written under the direction of an advisor assigned by the departmental chairman, and approved by the student’s supervisory committee.

Requirements for the M.A. Degree in Spanish:

General requirements for graduate work are given on pages 151-53.

For admission to the M.A. program in Spanish, a student must have previously taken the following Spanish courses or their equivalent: SPA 303, 401, 403, 405, and 406.

For a master’s degree in Spanish, the following are required:

1) 45 credit hours in Spanish courses, or:
   31-35 hours in Spanish courses, plus 10-14 hours graduate-level work in a second field approved by the student’s supervisory committee. Of the required work in Spanish, SPA 601 and 689 and at least 12 additional hours must be at the 600 level.

2) Reading knowledge of a second foreign language approved by the student’s supervisory committee.

3) A written comprehensive examination, based upon a reading list provided by the department, on Spanish and Spanish American language and literature. A portion of the comprehensive examination must be written in Spanish.

4) A thesis or thesis-type paper, written under the direction of an advisor assigned by the departmental chairman, and approved by the student’s supervisory committee.

INTERDISCIPLINARY LANGUAGE-LITERATURE

While some departments give credit toward a major for some interdisciplin-
ary 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 The Idea of Progress
   LLI 306 The Idea of Utopia
   LLI 315 The Idea of Freedom
   LLI 401 Three Central Ideas in Western Culture: Hierarchy, Mechanism and Organism
   LLI 402 Dominant Ideas in the 20th Century
   LLI 411 The Romantic Idea of the Self

II. Those relating a field outside the Division to work in it.
   LLI 321 Literature and the Occult
   LLI 383, 483, 583 Selected Topics
   (courses relating the film to literature and philosophy formerly under LLI are now under Mass Communications)

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

LINGUISTICS

Linguistics is primarily an upper-level and graduate discipline with strong interdisciplinary concerns. Undergraduates interested in Linguistics must elect one of the three combined majors described below. Graduate students may effect complete specialization in the program leading to the M.A. degree in Linguistics.

Students interested in Linguistics are urged to acquire a broad language background in their undergraduate programs, especially if they intend graduate study. A classical language (Latin, Greek, Hebrew) or a non-Western language (such as Japanese and Hindi, which are offered in the Linguistics Program) are strongly recommended in addition to any modern European languages the student may have studied. Also, prospective graduate students are advised to obtain good foundations in Mathematics (MTH 309 and PHI 509 are especially recommended), in computer programming, statistics, and experimental design and methodology. All programs for any of the three majors below must be approved by an adviser from both of the disciplines concerned.

Requirements for B.A. Degrees:

1. Anthropology-Linguistics Major. This sequence is designed for students who are particularly interested in the role of language in human behavior and cultural development. It requires the following eight courses in Anthropology: ANT 201, ANT 202, ANT 203, ANT 204, ANT 311, ANT 313, ANT 325, and ANT 491; six Linguistics courses: LIN 301, LIN 530, LIN 551, and SPE 503, and any two courses from the following group: LIN 511, LIN 540, LIN 541, LIN 543, CLS 571, ENG 518, PHI 531, PSY 441 or SSI 311.

2. English-Linguistics Major. This sequence is designed for students who are especially interested in the role of linguistic studies in problems of English, grammar, composition, and literary structure and style. It requires six courses from the following literature group, of which ENG 201 and ENG 501 are required: ENG 201, ENG 202, ENG 203, ENG 306, ENG 307, ENG 411, ENG
501, and ENG 507; four from the language group, but not both ENG 517 and ENG 535; ENG 321, ENG 515, ENG 517, ENG 518, and ENG 535; and four of the following, of which LIN 540, and LIN 551 are required: LIN 511, LIN 530, LIN 540, LIN 541, LIN 543, LIN 551, CLS 571, PHI 531, SPE 503, and SPE 511.

3. Foreign Language-Linguistics Major. This sequence is designed for students who are especially interested in the role of linguistic studies in problems of grammar, composition, and literary structure and style. The student must elect one of the following language sequences:
   FRENCH: FRE 301, 303, 305, 401, 403, 405, 406, and 516.
   GERMAN: GER 301, 303, 305, 401, 405, 406, 513, and 516.
   ITALIAN: ITA 301, 303, 305, 401, 405, and 406.
   RUSSIAN: RUS 301, 303, 305, 401, 405, 406, 515, and 516.
   SPANISH: SPA 301, 303, 305, 401, 403, 405, 406, and 516.

French, Italian and Spanish students must also take either ROM 517, or CLS 517. In the Linguistics sequence of the major, students must take LIN 301, LIN 551, CLS 571, and any two of the following: LIN 511, LIN 530, LIN 540, LIN 541, LIN 543, ENG 518, PHI 531, SPE 503, and SPE 511.

Students wishing to combine two modern foreign languages and linguistics must take one of the above sequences as the first language and the sequence 301, 303, 401, 403 (prefix determined by language selected), plus any phonetics, stylistics, or history of the language courses offered for that language. Students who intend to do graduate work are strongly urged to consider Latin or Classical Greek as a second language. Sequences for these languages are listed under Classics and Ancient Studies. Students may also elect Japanese or Hindi, taught in the LIN 583 sequence, as a second language; six quarters satisfies the requirements for one of these. The Linguistics course requirements remain the same as for a single foreign language.

Requirements for the M.A. Degree:

Requirements for Admission. Undergraduate majors generally regarded as appropriate foundations for graduate study in linguistics are: anthropology, English, a foreign language, linguistics, and speech; however, a student with a baccalaureate degree in any discipline is eligible. In addition to the general requirements of the University, an applicant must have an academic average of B in all of his major courses and a combined score of 1000 on the aptitude section of the Graduate Record Examination (a minimum of 500 of the total must be earned on the verbal portion). If a student’s undergraduate preparation has not included suitable introductory courses in general or descriptive linguistics and phonetics, he will be required to remedy the deficiencies by taking LIN 301 and SPE 503 (credit for the former may not be counted toward the degree requirements). The undergraduate study of one or more foreign languages, especially a non-Western language, is strongly encouraged.

Course Work. An M.A. degree in linguistics requires a minimum of 48 hours of course work of which LIN 551, LIN 601, LIN 602, LIN 611, LIN 612, and 8 hours of the thesis course LIN 699 are required. The remainder of the course work may be taken in linguistics courses (or closely related courses) in other departments, notably Anthropology, Classics and Ancient Studies, Education, English, Modern Languages, Philosophy, Psychology, Sociology, and Speech. The student may elect to take all of these remaining courses in one such department, or he may take them in several departments, but each program must be planned with and approved by the Linguistics adviser, who
may make appropriate substitutions when he deems these educationally advisable.

**Foreign Language Requirement.** The foreign language requirement is regarded as an integral part of the M.A. Program in Linguistics, and students must demonstrate a proficiency in one foreign language for the degree. However, students who intend to concentrate in historical-comparative linguistics will be expected to bring to the program an extensive undergraduate background in foreign languages, or else to remedy the deficiency after admission. Students who intend to concentrate their work in general-descriptive linguistics or other sub-specialties will have wide latitude in their choice of a foreign language to satisfy the requirement, and the study of a non-Western language is strongly encouraged. The choice of a language and the method for satisfying the proficiency requirement (e.g., course work, examination, etc.) will be determined on an individual basis by the student and his thesis committee.

**Other Requirements.** The student will present an acceptable thesis in the field of linguistic studies (8 hours credit are granted for this project through registration for LIN 699; see above under course work requirements). In addition, the student must pass a comprehensive examination in linguistics, both oral and written. If a student has elected to take as many as eight hours of course work in a department other than Linguistics in his program, then his examination will cover material from those courses also.

The following courses taught in other departments are also linguistics courses, or are closely related to linguistics: ANT 313, CLS 371, CLS 517, CLS 571, EDT 531, EDT 631, EDX 649, ENG 515, ENG 517, ENG 518, ENG 535, ENG 616, FRE 403, FRE 601, GER 513, GER 514, GER 601, PHI 531, PSY 441, ROM 517, ROM 518, RUS 515, RUS 516, SPA 403, SPA 601, SPE 503, SPE 511, SPE 603, SPE 611, SPE 612, SAI 623, and SSI 311. Descriptions of these courses may be found under the appropriate departmental headings.

**MASS COMMUNICATIONS**

(1) Mass Communications (journalism) offers a number of courses with a general liberal arts approach, from which any student may elect those suited to his interests or needs. Majors in Mass Communications will find, in addition, more specialized courses in advertising, film, magazine, news-editorial, and public relations areas. The following general courses are designed to introduce students to a broad perspective and understanding of the processes of communication and its effects upon society and the individual:

- COM 300 Introduction to Mass Communications (3)
- COM 301 The Popular Arts in America (4)
- COM 351 Literature and the Film (3)
- COM 403 History and Principles of Communications Law (4)
- COM 451-452 Social History of the Film (4, 4)
- COM 453 The Documentary Film (4)
- COM 500 Theory of Mass Communications

(2) Majors seeking careers in the mass media will be directed to the various daily and weekly newspapers, radio and television stations, advertising agencies, magazines and public relations firms with which the department maintains close contact. Summer internships and part-time work in the media are available to qualified students.

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

The necessary techniques that a major in Mass Communications will receive
are based on a knowledge of certain kinds of human behavior, especially as it relates to theory, principles, and practice of mass communications. Required courses and recommended electives offer students the widest possible freedom to explore their own areas of interest within a framework of the liberal arts. Majors will choose about 60 credits of electives; required are 22 credits in a Mass Communications "core," 13 credits in supporting courses, and 24 to 26 credits in a sequence, as follows:

**Required Core Courses:**
- COM 300 Introduction to Mass Communications (3)
- COM 330 Beginning Reporting (4)
- COM 351 Literature & the Film (3)
- COM 403 History and Principles of Communications Law (4)
- COM 491 Senior Seminar: Intercommunications (4)
- COM 500 Theory of Mass Communication (4)

**Required Supporting Courses:**
- POL 201 American National Government (4)
- POL 203 State-Local Government (4)
- SPE 241 Introduction to Broadcasting (5)

**ONE OF THE FOLLOWING FIVE SEQUENCES:**
- Advertising (25 q.h.):
  - MKT 301 Basic Marketing (5)
  - MKT 312 Principles of Advertising & Sales Promotion (3)
  - COM 313 Advertising Copywriting and Layout (4)
  - COM 341 Principles of Public Relations (4)
  - COM 375 Typography I (4)
  - MKT 413 Consumer Behavior (3)
- Film (24 q.h.):
  - COM 345-355-356 The Film as Mass Communications I, II, III (12)
  - COM 451 Social History of Film to 1945 (4)
  - COM 452 Social History of Film to the Present (4)
  - COM 453 The Documentary Film (4) or COM 454 Film Criticism (4)

**Magazine (26 q.h.):**
- COM 321 Magazine Article & Feature Writing (4)
- ENG 321 Advanced Writing (4), or ENG 235 Advanced Exposition Writing (4)
- COM 325 Magazine Editing (4)
- COM 371 Photojournalism I (4)
- COM 375 Typography I (4)
- COM 425 Magazine Planning and Production (4)

**News-Editorial (26 q.h.):**
- COM 331 Advanced Reporting (4)
- COM 338 Newspaper Management (2)
- COM 371 Photojournalism I (4)
- COM 375 Typography I (4)
- COM 433-434 News Editing I, II (8)
- COM 539 Seminar: News-Editorial Problems (2)

**Public Relations (26 q.h.):**
- COM 341 Principles of Public Relations (4)
- COM 441 Public Relations Writing (4)
- COM 541 Public Information (4)
  12 hours of related electives

**SECONDARY EDUCATION MAJORS**

English-Education majors, or those who wish certification in Journalism under the English-Journalism-Education program, are referred to the College of Education section of this Catalog.

Descriptions of these courses may be found under the appropriate departmental course descriptions.

Each student's program must be planned with the Mass Communications adviser who may make appropriate substitutions when he deems it educationally advisable.

**PHILOSOPHY**

The philosophy program includes five major areas of study: (1) logic and scientific method, (2) history of philosophy, (3) theory of knowledge, (4) theory of reality, and (5) theory of value. Majors in philosophy must complete at least
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45 credit hours in the program, with the following courses required: (1) PHI 303; (2) PHI 333, 334, and 335. In addition to (1) and (2) we urge all majors who are going to graduate school in philosophy to take at least one course in all areas. At least nine credits must be taken above the 500 level, including two seminars. No more than two of PHI 301, 311, 317 will be counted toward the major. Credit toward a major in philosophy will be extended for LLI 306 or 315. Students may substitute PHI 583 (selected topics) for any requirement above, with approval of the Department Chairman.

The Department of Philosophy offers the philosophy major the opportunity of participating in the Philosophy Department Honors Program. A student may graduate with departmental honors if he: (1) is accepted by the Department as an honors candidate, (2) completes 4 honors courses with a grade point average of 3.5 or better, and (3) completes the courses necessary for a philosophy major with a grade point average of 3.2 or better. The 4 honors courses will consist of 3 upper-level courses in which the student attends regular class sessions but makes arrangements with the instructor for additional work. Honors courses carry 1 additional hour credit. Instead of enrolling in the course under the usual number, the student will enroll in, e.g., PHI 383-05, 483-05, or 583-05. The fourth honors course will be a research project, and the student will enroll for the project under PHI 583-03.

RELIGIOUS STUDIES

The major in religious studies is offered to those students who are interested in the vital role of religious thought and practice in shaping the cultural patterns of various peoples and in its relationship to the merging patterns of contemporary life. This major might be elected out of personal interest in religion, or as the undergraduate preliminary for a master and doctoral program in religious studies, or as a valuable background for semi-professional and professional work in religion; e.g., teaching in public schools, junior colleges, universities, the religious education departments of churches and synagogues.

The program is designed to give the student a substantial background for further study in the field, and at the same time permit considerable freedom for study in the fields which are related to religion; e.g., sociology, anthropology, literature, humanities, philosophy, classics, history, etc.

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 it be analyzed? (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 300, REL 310, REL 315, REL 325, REL 327, REL 328, REL 350, REL 351.

II. Analysis of Religious Thought (16 quarter hours required): REL 300, REL 329, REL 360, REL 370, REL 491, PHI 411, SOC 373 ANT 471 (Primitive Religion).


Descriptions of these courses may be found under the appropriate departmental course descriptions.

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

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, 565, 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 Studies level.

**Division of Natural Sciences and Mathematics**

The Division of Natural Sciences offers courses in astronomy (AST), biology (BIO), botany (BOT), chemistry (CHM), geology (GLY), mathematics (MTH), microbiology (BIO), physics (PHY), zoology (ZOO), 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 nonscientists.

**The B.A. Degree Programs**

The Division offers the bachelor of arts degree in the following departments: Astronomy, Biology, Chemistry, Geology, Mathematics, and Physics.

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 of 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 either one of the liberal arts mathematics sequences MTH 211-213 or MTH 302-304 with an average grade of “C” or higher can receive an automatic waiver of CBS 109-110.

A student passing two beginning liberal arts sequences in separate phys-
ical science disciplines with an average grade of "C" or higher can receive an automatic waiver of CBS 208-210. These sequences are: CHM 211-213; PHY 201-206 or 301-304; GLY 201-301; AST 203-204 or 301-302.

A student passing BIO 201-203 with an average grade of "C" or higher 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.

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 fields of science or mathematics. Pre-medical and pre-dental students should contact the chairman of the Pre-Medical 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, geophysics, and others.

PRE-MEDICAL PROGRAM

The pre-medical program provides a complete array of courses and educational experiences necessary for preparing oneself for admission to medical school. Pre-medical students should major in a discipline which is of the greatest appeal to them, whether it be in the sciences or non-sciences, and fulfill all requirements in that major for graduation. The following science courses are the minimum requirements for admission to virtually every accredited medical school:

One year of Biology: BIO 201, 202, 203.
Two years of Chemistry: CHM 211, 212, 213, 331-332, 333-334, 335-336.
One year of Physics: PHY 201-202, 203-204, 205-206.

Additional science requirements vary according to the medical school to which the student will be applying. Part of these additional requirements may be fulfilled by the following courses:

Chemistry: CHM 321, 305, 351.
Mathematics: MTH 211, 212, 213 (or MTH 101, 302, 303, 304)
Biology: ZOO 311; BIO 331, 421, 422.

Beyond the science course requirements, it is essential that students acquire an inventory of courses developing a sense of understanding of cultural and moral values, and basic social problems. It is understood that the quality of academic performance should be of the highest level.
It may be noted that well-prepared students with exceptional qualifications may be admitted to medical school as early as the completion of the junior year of pre-medical work.

**Master's Degree Programs**

The Natural Science division offers graduate programs leading to the master of arts degree in the fields of Astronomy, Biology, Botany, Geology, Mathematics, Microbiology, Physics and Zoology and a master of science in Chemistry.

Students apply for graduate work through the Division of Natural Sciences and Mathematics 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 University requirements for graduate work at the master's level are given on page 151. 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 Programs**

The Division of Natural Sciences and Mathematics offers three programs leading to the degree of Doctor of Philosophy.

**Biology**—This program leads to the Ph.D. in Biology, including the fields of Marine Biology, Systematics, Behavior, Ecology and Physiology.

**Chemistry**—This program leads to the Ph.D. in Chemistry, including the fields of Analytical, Biochemistry, Inorganic, Organic and Physical Chemistry.

**Mathematics**—This program leads to the Ph.D. in Pure and Applied Mathematics including the fields of Mathematical Astronomy and Mathematical Physics.

The University regulations governing graduate study at the doctoral level are given on page 153. The specific departmental requirements are given on page 126 for Biology, page 127 for Chemistry, and page 131 for Mathematics.

**Departmental 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 301, 302, 413, and 443; a selection of three courses from AST 521, 522, 533, 536, 583, and at least three credit hours of AST 361 or at least three credits in AST 481. AST 203, 204 and 371 are not available for credit for Astronomy majors. In addition, the student will take PHY 221 through 226; or PHY 211 through 216 and PHY 315; and a total of at least nine additional 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 302, 303, 304, 305, and at least nine credits in mathematics at the 400 level or above, preferably to include MTH 405 and 406.

The student is expected to familiarize himself with the technique of
programming electronic computers before the end of the sixth quarter. No credit toward graduation is given for ETK courses.

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 151-53.

A minimum of 45 credits must include at least 24 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 his initial deficiencies in this respect. Since candidates for the graduate degrees in astronomy may have a variety of backgrounds, including majors in astronomy, mathematics, or 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.

BIOLOGY

Requirements for the B.A. Degree:

**Major in Botany-Microbiology:** Although there are specific course requirements for majors in the various subdisciplines of biology, all require study in certain basic areas of the biological and physical sciences. Modern biology is characterized by a marked interdisciplinary trend so that only students well grounded in ancillary fields like chemistry, mathematics and physics will be competitive for jobs and further study after completion of their baccalaureate degree.

Four specific curricula are available for the student interested in Biology. All curricula prepare the student for further graduate work, or for a terminal degree in the biological sciences. A major must present 45 credit hours in courses with a BOT, BIO, or ZOO prefix, and must include BIO 201-203, BIO 331, BOT 302, BOT 351, and BOT 491. At least 12 hours of the electives must have a BOT or BIO prefix. In addition, at least one year of laboratory courses in chemistry, one year of laboratory courses in physics, and one course in mathematics (MTH) are required. Students are advised to enroll in BIO 201 and CHM 211 in 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 should obtain early curriculum counseling from the departmental chairman. This major provides a flexible program designed for preparation in education, conservation, forestry, and agriculture as well as serving as a terminal degree in the liberal arts.

**Major in Botany:** The student interested in Botany must have 45 credit hours in courses with the BOT, BIO, or ZOO prefix, and must include BIO 201-204, BIO 331, BOT 302, BOT 351, BOT 491 and courses in plant systematics, plant anatomy, plant ecology, and plant physiology. At least 12 hours of the electives must have a BOT or BIO prefix. In addition to one
year of laboratory courses in chemistry and physics, and one course in mathematics (MTH), at least one course in organic chemistry is required.

**Major in Microbiology:** The student interested in Microbiology must have 45 credit hours in courses with a BOT, BIO, or ZOO prefix and must include BIO 201-203, BIO 331, BOT 351, BOT 491, BOT 552 and additional credits in microbiology as recommended by his faculty adviser. In addition to one year of laboratory courses in chemistry and in physics, MTH 211 and three courses in organic chemistry or biochemistry are required. A student should plan to complete BIO 201-203 sequence, and CHM 211-213 sequence by the end of his freshman year; CHM 331-336, MTH 211, BIO 331, and BOT 351 by the end of his second year; PHY 201-206 and BOT 552 by the end of his junior year. A suggested plan of study is available from faculty advisers.

**Major in Zoology:** A student interested in zoology must include the following courses in his program: BIO 201-203, ZOO 321, BIO 331, BIO 421, BIO 422, BIO 445, and five elective, structured courses, three of which must have ZOO prefixes (two must be adviser-approved courses within the Natural Science division, but excluding those numbered 370-379). Also required are CHM 211-213, CHM 331-332, CHM 333 with 334 optional and CHM 351 (CHM 331-336 is an acceptable substitute), MTH 211-213, and PHY 201-206. A foreign language (preferably German, French, or Russian) is strongly recommended. It is imperative that freshmen 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 preparation for advanced training in medicine and dentistry as well as graduate work in zoology.

**Graduate Work in the Biological Sciences**

General requirements for graduate work are given on pages 151-55.

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

**Major in Botany or in Microbiology:** Students are admitted for graduate work in Botany or in Microbiology 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, microbiology, biology, or the physical sciences is recommended in addition to a satisfactory grade on the Graduate Record Examination.

For a master’s degree in Botany or in Microbiology, 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 requirements 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 adviser, 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 perform-
Requirements for the Ph.D. Degree:

Doctorate in Biology: The Ph.D. in Biology is offered in the fields of Marine Biology, Systematics, Behavior, Ecology, and Physiology. It is a cooperative effort involving many disciplines. The department chairman is responsible for advising the student to (a) work toward his M.A. first or (b) work directly toward his Ph.D.

Students advised to work toward the Ph.D. will have a supervisory committee appointed as soon as possible and including at least one member from a discipline outside the student’s field of concentration. 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 through the department chairman 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 Biology 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. Several faculty members in the department 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 623—Physiology of Marine Animals, ZOO 633—Physiology of Fishes and ZOO 615—Plankton Systematics. Interested students should see the chairman of the Biology department for further advice.

CHEMISTRY

Requirements for the B.A. Degree:

A chemistry major must include the following chemistry courses: CHM 211, 212, 213, 321, 331, 332, 333, 334, 335, 336, 441, 442, 443, 445, 446, 447, and 491. Other required courses include MTH 302, 303, 304, and either PHY 201-202, 203-204, 205-206 or PHY 301-302, 303-304, 305-306.

Students should keep in mind that CBS 208-209-210 and CBS 109-110 can be waived by taking the required courses listed above. The required sequence should be started immediately in the freshman year and the student should not register for any CBS courses that can be waived. The student should plan to complete the mathematics and physics requirements before the junior year so the CHM 441 can be taken at that time.

The above courses constitute a minimum curriculum for the B.A. in Chemistry. It is recommended that this program be strengthened with addi-
tional courses to be selected by the student in consultation with his faculty advisor.

ACS Approved Program. The following program is intended primarily for the student who plans to make chemistry his profession. The program is open to all chemistry majors. Students who complete this program will be certified to the American Chemical Society as having met the minimum requirements for a professional degree. The program consists of satisfactory completion of the above chemistry, mathematics, and physics courses plus the following courses: MTH 305, CHM 511, another 400 or 500-level course in chemistry, and two years of college-level German, French, or Russian. Other advanced chemistry, physics, mathematics, or biology courses should be taken if the student anticipates pursuing graduate work in chemistry.

Graduate Work In Chemistry

General requirements for graduate work are given on pages 151-55.

Departmental Requirements for the M.S. Degree:

All entering graduate students who have no advanced work beyond a B.A. or B.S. will be required to take the core course in each of the five areas: analytical, biochemistry, inorganic, organic, and physical chemistry. This requirement can be waived by recommendation of the advising committee on the basis of past work, performance on a diagnostic test, or substitution of more comprehensive and advanced courses. The required core courses are CHM 621, CHM 511, CHM 551, CHM 532, CHM 542.

Beyond the required core courses, the curriculum for a chemistry major will vary with the area of his thesis. The specific course requirements will be determined by his advisory committee and his proposed research, in consonance with the regulations given on page 152.

Comprehensive Examination. Each student must pass the written comprehensive examinations in four of the five areas: analytical, biochemistry, inorganic, organic, and physical chemistry. Each examination will be prepared by the faculty of that area and will be from one to three hours duration. Each examination will be graded independently by members of the respective areas each arriving at a fail-pass-high pass verdict. A student may repeat any or all of the examinations provided that he has passed four by the time six quarters have elapsed from his admission as either a degree-seeking or a non-degree seeking full-time graduate student. Normally, the examinations will be given during the period preceding Quarters I and III and after the preceding quarters have ended.

While it is anticipated that the core courses will bridge the gap between undergraduate and graduate courses, and will therefore help students prepare for the qualifying examinations, it should be understood that the qualifying examinations are general examinations in their respective fields and not merely final examinations in the core courses.

Final Thesis Defense. Upon completion of the thesis research and preliminary approval of the thesis by the supervisory committee, the M.S. candidate will be required to pass an oral examination conducted by the supervisory committee on his research. Final approval of the examination and of the thesis will require approval by the entire committee.

Requirements for the Ph.D. Degree:

The Ph.D. in Chemistry does not require a specific number or distribution of course credits. The candidate, with the help of his adviser and the approval of
his advisory committee, will design a program of study and research that will result in a mature and creative grasp of chemical science. Approval of the candidate's program will rest with his advisory committee.

While there are no specific course requirements for the Ph.D. degree, beginning graduate students who plan to circumvent the M.S. degree are advised to take the core courses or their equivalent before attempting the Qualifying Examinations.

**Qualifying Examinations.** The Qualifying Examinations requirement for the Ph.D. degree will be the same as the comprehensive examination for the M.S. degree except that the Ph.D. candidate must not only pass the examinations in four out of five areas, but he must also pass two of these examinations (one of which is in his major area) "with distinction". In other words, the Ph.D. candidate must demonstrate his very real grasp of the principles in his major area and one other area (probably related to his major area, but not necessarily so). As in the case of the M.S. requirements, a student may repeat any or all examinations, provided that he has passed four, two with high pass, by the time six quarters have elapsed from his admission as either a degree-seeking or non-degree seeking full-time graduate student. The Qualifying Examinations shall be given in the form of one to three hour examinations in each of the five areas—analytical, biochemistry, inorganic, organic, and physical.

While it is anticipated that the core courses will bridge the gap between undergraduate and graduate courses, and will therefore help students prepare for the qualifying examinations, it should be understood that the qualifying examinations are general examinations in their respective fields and not merely final examinations in the core courses.

**Language Examinations.** Before a student is eligible to qualify for candidacy for the Ph.D. degree, he must demonstrate a reading knowledge of the chemical literature in any two of the languages — German, Russian, and French (or any other language approved as appropriate by the supervisory committee); or he must demonstrate reading knowledge in one of these languages and demonstrate proficiency in a skill or specialization outside the discipline of chemistry. The latter could include (1) proficiency in computer programming; (2) advanced specialization in mathematics, physics, biology, geology, or any other appropriate area pertinent to scholarly work in chemistry; (3) any other field of advanced study of proficiency deemed appropriate by the supervisory committee.

The language requirement must be met by one of the following: (1) reading knowledge in two foreign languages as demonstrated by a test to be specified; (2) reading knowledge in one foreign language and some other proficiency such as computer programming; (3) in-depth knowledge of one foreign language (speaking and reading knowledge); (4) three quarters of a foreign language at the college level with a minimum of C grade in each quarter may be used to waive one language, or, if two foreign languages are taken, the language requirement is fulfilled; (5) periodic translations to be administered by the student’s supervisory committee.

The language requirement must be met one year before graduation.

**Major Comprehensive Examination.** A comprehensive major examination will be required of Ph.D. candidates sometime after satisfactory completion of the qualifying examination. This examination must be taken one year before graduation.

**Advancement to Candidacy.** Completion of all the foregoing requirements admits the student to candidacy for the Ph.D.

**Final Thesis Defense.** Upon completion of the dissertation research and
approval of the dissertation by the supervisory committee, the Ph.D. candidate will give a public oral presentation of his research. This presentation can be scheduled only after all members of the supervisory committee have approved and signed the final form of the dissertation. The oral presentation will be chaired by a member of the faculty outside of the Department of Chemistry appointed by the Dean of the College. The candidate may expect questions concerning the details and significance of his research after the oral presentation. Final approval of the candidate's degree will require approval by a majority of the supervisory committee, which shall include the chairman of the oral presentation.

**GEOLOGY**

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

A major in geology will normally include GLY 201, 301, 302, 303, 311, 361, 412, 503, 504, 513, and seven elective credits in Geology. (With the approval of the Geology department GLY 371 or 473 may be substituted for GLY 201 in the normal curriculum for Geology majors, provided a grade of B or better has been earned.) In addition, the program must include CHM 211, 212, 213; PHY 201, 202, 203, 204, 205, 206, 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.

All courses required for the major in geology (except GLY 481) must carry letter grades other than S or U.

**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. A major interested in marine geology should contact the chairman of the department for further details.

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

General requirements for graduate work are given on pages 151-53.

Students are admitted for graduate work in Geology if they present the requisite background in geology and supporting sciences. The bachelor of arts and 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. A minimum number of 45 credits is required for the master's degree of which: a minimum of 24 credits in courses numbered 600 or above (GLY prefix); either a written thesis in a field of specialization in geology approved by the advisory committee or an equivalent amount of course work in geology
approved in advance by the committee; and additional graduate credits in geology approved as part of a planned degree program to make a minimum of 45 credits beyond the bachelor's degree and exclusive of prerequisites. Satisfactory performance on a comprehensive examination is also required.

All required courses applicable to the master's degree (except GLY 681, 691, 699) must carry letter grades other than S or U. Other requirements for the degree may be found on pages 151-53.

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 alternate degree, see pages 90-91.

MATHEMATICS

Requirements for the B.A. Degree:

Majors must have at least 47 credits in mathematics above the 100 level, including MTH 302, 303, 304, 305, 309, and 323. In addition, except for majors in mathematics for teaching, at least one of the following sequences is required: MTH 405, 406; MTH 513, 514; MTH 513, 406. Majors in mathematics for teaching must have MTH 423 and MTH 424. 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 401, 511, 520, 523, 531 and electives.
- 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 302</td>
<td>MTH 303, 309</td>
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<td>MTH 304, 323</td>
<td>MTH 305</td>
<td>MTH elective (2)</td>
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Sophomore

Students with a strong background in high school mathematics may waive MTH 101 with the consent of the chairman.

Requirements for the M.A. Degree

General requirements for graduate work are given on pages 151-53.

A thesis is optional. The thesis program requires a minimum of 45 credits of course work, of which the thesis may carry three to nine credits. The non-thesis program requires 45 credits of course work. In either case, 24 hours 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 or MTH 681 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 77. For master of arts degree for teachers in mathematics, see page 85. For an alternative degree for teachers in junior college, see pages 90-91.

Requirements for the Ph.D. Degree

In addition to the general University requirements for the Ph.D. degree, on page 153, the mathematics department requires the following:

1. The two languages required must be chosen from French, German, and Russian.

2. Written preliminary examinations, usually taken during the second year, must be passed in four of the five following subjects: Algebra, Complex Analysis, Differential Equations, Real Analysis, and Topology.

3. Specific numbers or distributions of course credits are not required. It is assumed that at this level the candidate, with the help of his adviser, and the approval of his advisory committee, will design a program of study and research that will result in a mature and creative grasp of mathematics. Approval of the student's program will rest with his advisory committee.

PHYSICS

Requirements for the B.A. Degree:

Majors must have one year of general physics (consisting of either PHY 201 through 206 and 315, or PHY 301 through 306, PHY 307, 341, 407, 409 441, 507, 509. Additional physics courses sufficient to total 45 credits of structured courses are required. 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:

In addition to a thesis, a minimum of 45 credits is required, 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, he will consult with the Graduate Physics Adviser, who will be his course adviser and will also keep a close check on the progress of the student in his work. After the student has made a decision as to his thesis field, the duties of the Graduate Advisor will be assumed by an Advisory Committee appointed by the department chairman. The Committee Chairman will usually be the thesis supervisor. The Advisory 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.

Requirements for the Ph.D. Degree

A Ph.D. degree in Mathematical Physics is given through the Mathematics Department. See requirements under Mathematics, above.
Programs for Teacher Education:

For a B.A. degree for the secondary school teacher of physics, see page 78. For M.A. degree for teachers in physics, see page 85. For teachers in junior college, the M.A. degree in physics is recommended plus PHY 688 and PHY 689.

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, Police Administration, Social Science Divisional, and the social studies major for high school teachers (described in the College of Education section of this catalog).

Most social science majors require statistics. The student should 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 mass communications courses as might contribute to this skill. The specific requirements of each major are outlined below.

Graduate level courses are now offered in most social science departments and the master of arts degree is offered in Geography, History, Political Science, Psychology and Sociology. The doctor of philosophy degree is offered in Psychology.

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. For a description of the combined major in Anthropology and Linguistics, refer to the Linguistics section, page 115.

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

Requirements for the B.A. Degree:

A major in geography consists of 50 quarter hours in geography courses,
including GPY 301-302-303; 403 (Meteorology) and one additional 403 course; 405 (Economic) and one additional 405 course; 371 or 407; 409 (Cartography) and one additional 409 course.

Requirements for the M.A. Degree:

General requirements for graduate work are given on pages 151-53.

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, 607, and 689. Up to 4 credits outside the department may be elected with the approval of the student’s committee and major professor.

HISTORY

Requirements for the B.A. Degree:


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 adviser, cross-selection may be permitted. From Parts II and III, a minimum of 16 hours is required in 300 or above level courses. Of these 16 hours, 12 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, eight 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, HITY 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, the completion of a comprehensive examination, and a thesis are required for graduation.

INTERDISCIPLINARY SOCIAL SCIENCES

The Department of Interdisciplinary Social Sciences offers courses designed to deal with cross-disciplinary problems in the social sciences by using the “convergence” concept of interdisciplinary treatment. Its courses are provided as a service to all interested departments of the University. Certain courses are either required or recommended by a number of departments in the College of Liberal Arts, the College of Education, and by several interdisciplinary degree programs.

Two interdisciplinary degree programs of the Social Science division are coordinated by the department: Law Enforcement and the Social Science Divisional Major.

Law Enforcement
Requirements for the B.A. Degree:

Law Enforcement majors must complete the following specific courses: SOC 201, 301, 331, 371, 561, 563; PSY 201, 335, 455; POL 351, 432, and either 453 or 454; SSI 301. Additional requirements are three Social Science electives, two of which must be SSI courses.

Law Enforcement majors may qualify for financial aid as provided for by the Law Enforcement Education Program of the U.S. Department of Justice. Further information can be obtained from the Office of Financial Aids.

Social Science Divisional Major
Requirements for the B.A. Degree:

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.

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 371. 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 405 (political), 407° (any foreign region); HTY 251, 252, 333, 334, 337, 338, 340, 341, 342, 345°, 346°, 347, 409°, 410°, 429°, 430°, 461°, 464; POL 311°, 331°, 333°, 338°, 405, 410°, 421°, 425, 428, 438°, 550°, 561°; SOC 371, 541, 571; SSI 311°, 315°, 339, 341, 343, 345, 347, 361°, 449°, 450°, 481°, 485°, 491°, 505°, 583° (international topic).

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 405 (political), 407° (Asia or Africa); HTY 409, 410, 461°; HUM 539°, 540°, 541°, 542°, 543°; POL 331°, 333, 410°, 421°, 428, 438°, 561°; SOC 371, 541, 571; SSI 343°, 345°, 347°, 361°, 449°, 450°, 481°, 485°, 491°, 505°, 583.

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 405 (political), 407° (Latin America); HTY 251°, 252°, 353°, 355°, 409, 410, 451°, 453°, 461, 591° (Latin America); HUM 545°; POL 331, 425°, 561; SOC 371, 541, 571; SSI 311, 315, 341°, 361, 449, 450, 481°, 485°, 491°, 505, 583.
POLITICAL SCIENCE
Requirements for the B.A. Degree:

The undergraduate curriculum in political science is composed of POL 199, 201, 491 and SSI 301 as core courses and the following fields, Field I, American Government, consisting of courses POL 338, 341, 345, 347, 431, 432, 434, 441, 443, 455, 463; Field II, Public Administration and State and Local Government, consisting of courses POL 203, 351, 453, 454, 455, 457, 525, 527; Field III, Political Theory and Philosophy, consisting of courses POL 343, 431, 443, 461, 462, 463, 464; and Field IV, Comparative Politics and International Relations consisting of courses POL 311, 331, 333, 338, 405, 410, 415, 421, 425, 428, 438, 445, 550, 561.

A minimum of 44 quarter hours is required for a major. The core curriculum consists of 16 quarter hours and, in addition, the student must take at least one course each from three of the four fields with a total of seven courses and 28 quarter hours. While some courses may be listed under two fields, a course may be used only once to fill a field requirement.

Requirements for the M.A. Degree:

General requirements for graduate study are given on pages 151-53.

The student must complete a minimum of 45 quarter hours of graduate level 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 master’s 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.

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 master's 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 must acquire basic skills in: (1) Reading and Comprehension, and (2) the English language. Mastery of the English language, both written and oral, and ability to read rapidly comprehensively are positively essential for successful performance in the study of law. As there is no prescribed pre-legal program, any courses that help develop clear and systematic thinking, command of the English language, and a broad understanding of our society constitute sound preparation. A good lawyer must understand the social context within which legal problems arise.

No specific college major is required for admission to law school. Qualification for the study of law includes the bachelor of arts degree or its equivalent, the results of the Law School Admission Test given by the Educational
Testing Service at Princeton, New Jersey, a student's pre-law scholastic record, and other criteria which vary according to individual schools.

The Law School Admission Test is given simultaneously several times each year at Stetson Law School and at numerous other test centers throughout the nation. Students should plan to take the test not later than February of the year in which they make application to a law school. Information pamphlets and application blanks for the Test are obtainable from the Political Science Department, SOC 352, University of South Florida, or from Law School Admission Test, Educational Testing Service, Box 944, Princeton, New Jersey, 08540, or from the test centers.

Students wishing additional information should consult with the pre-law adviser.

PSYCHOLOGY
Requirements for the B.A. Degree:
Majors must complete at least 38 quarter hours in the field. All majors must complete PSY 201, SS1 301, PSY 311-312 and select three of the following courses: PSY 402, 403, 404, 405. In addition, 12 elective credits in Psychology courses must be completed. PSY 411 is strongly recommended for all majors and required of students planning graduate training. 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 work are given on pages 151-53.
The student must complete 56 credit hours of graduate psychology courses. All students must take at least two of the three methods courses, PSY 631, 632, and 633. In addition, the student must complete a minimum of four of the following six courses: PSY 634, 635, 636, 637, 638, and 639. The selection of these courses will be made upon the mutual agreement of the student and his advisory committee. Students with prior work in PSY 634, 635, 636, 637, 638, and 639 may waive any of these by successfully passing a special examination given by the Psychology department. Successful waiver does not reduce the overall credit hours requirement. PSY 640 is taken in each of the first three quarters of the first year of graduate work. Specific apprenticeship assignments will be arranged to suit the student's interests and training needs. A research thesis, PSY 699, is required and the student must successfully pass an oral examination on the thesis as well as maintaining a B average in his course work, exclusive of thesis and research courses.

Requirements for the Ph.D. Degree:
A Ph.D. program in psychology has been approved by the Board of Regents to begin in September, 1971, with specializations in Clinical, Industrial-Organizational, and General Experimental Psychology. As of the printing of this catalog requirements for admission to these programs have not been detailed. For a brochure describing this program write to Graduate Admissions Committee, Department of Psychology, University of South Florida, Tampa, Florida 33620.

SOCIOLOGY
Requirements for the B.A. Degree:
The major consists of a minimum of 40 quarter hours which must in-
clude SOC 201, 315, 321, and SST 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, 481, and 505. A model program of recommended sequences may be obtained from the Sociology department.

Requirements for the M.A. Degree:

A minimum of 45 credits is required, 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, Theory and Methods of Research (SSI 301, SOC 315 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 151-53.
College of MEDICINE

The major objectives of the College of Medicine in accepting the charter class in September, 1971, are first, to create and maintain an academic environment in which medical education, the production of new knowledge, and community service may be continued in a quality manner. The second objective is to integrate the College of Medicine into the mainstream of the community and to participate in and lead in the up-grading and improvement of the health care standards of the community in which the College is located. The third objective is to function within the framework of the total University as an integral and valued part of the University community.

The philosophy of the educational program at this institution is to provide a strong academic basis for lifetime scholarship in medicine and growth in professional stature for our students; to lay the foundation for the development of ever increasing technical and professional competency and proficiency in the arts and sciences of medicine for each of the students; to instill in our students compassion and a sense of devotion to duty to their profession and to their patients; to provide relevance and continuity in instruction among the various disciplines related to medicine; to maintain and increase our students' motivation for community and human service in the practice of their profession; to stimulate the students to accept major responsibilities in learning; to orient teaching activities around the student and his desire and ability to learn.

With these concepts in mind, a curriculum has been developed which we believe will achieve an effective correlation between the pre-clinical and clinical instructional areas. This curriculum is designed to emphasize conceptually oriented teaching, thus affording the students a challenging and intellectual experience as opposed to a routine and the superficial presentation of a large volume of facts. Relevance to medicine will be emphasized in all areas of instruction in a way recognizable and understandable by the student of medicine. Increased correlation on an interdisciplinary basis will be instituted providing reinforcement between the various fields of study. The curriculum will also provide a close and ongoing experience for the student in the day-to-day and continuing health care delivery system within the community hospitals and in ambulatory care facilities. It is anticipated the program will produce graduating physicians who understand and desire the practice of medicine as a fruitful and meaningful choice for a lifetime career of service to their patients and the community.

It is recognized that the program does place heavy demands upon the student. He will be expected to utilize all resources provided by the College, to maintain a consistent level of academic achievement, and to demonstrate evidence of initiative and dedication to his chosen profession.
Admissions

Students admitted to the College of Medicine are selected on the basis of what appear by present standards to be the best suited for the successful study and practice of medicine. The selection is made by the Admissions Committee composed of members of Pre-Clinical, Clinical, and Volunteer faculty. Each applicant is considered individually and is judged strictly on his own merits. Characteristics evaluated include motivation, integrity, character, and general fitness. These are judged by recommendations of the applicant's Pre-Medical Advisory Committee as well as other letters of recommendation. The academic record and Medical College Admission Test furnish an estimate of academic achievement and intellectual competence.

Interviews are arranged for all applicants whose qualifications appear to warrant complete exploration.

All inquiries concerning admission should be directed to the Office of the Associate Dean for Student Affairs, College of Medicine, University of South Florida, Tampa, Florida 33620.

Requirements for Admission

A minimum of three years of college or university work is required with some preference given to those applicants who present a bachelor's degree from a liberal arts college approved by one of the national accrediting agencies. The minimum requirement is three years of college work (90 semester hours or 135 quarter hours, exclusive of Physical Education and R.O.T.C.).

Regardless of the number of years involved in Pre-Medical training, the college credits submitted by the applicant must include the following:

- One Year — General Chemistry, including laboratory
- One Year — Organic Chemistry, including laboratory
- One Year — Physics, including laboratory
- One Year — Biology, including laboratory
- One Year — Mathematics

All applicants must arrange to take the Medical College Admission Test.

REQUIREMENTS FOR GRADUATION

The awarding of the degree Doctor of Medicine will follow successful completion of the entire required course of study. Grading of performance in academic subjects will be on a pass, fail, honors grading system, and the student must have achieved a grade of at least pass in all subjects in the curriculum. This curriculum is normally completed after a period of four years, but in selected cases and with the approval of the Dean, it may be completed in a somewhat shorter period of time. In addition to academic performance, the student must have demonstrated proper professional development and demeanor during his course of study.

Medical Technology Program

Each student seeking to enter the Medical Technology Program must have completed not less than 135 quarter hours of work. This must include 24 hours of Biology (including BIO 351), 24 hours of Chemistry, 12 hours of Physics, courses satisfying the College of Basic Studies requirements, CBS 401, and courses in non-science fields to insure a broad background.
As an integral part of this program, qualified students will follow a twelve-month course in one of the approved Medical Technology Schools in central Florida. They will register for a total of 45 credits during the year. Because such courses are open only to those already admitted to the program, they are not listed in this catalog. The students completing this program will be granted a B.S. in Medical Technology.

Chemistry Building
College of NURSING

The College of Nursing program leads to a Bachelor of Science degree with a major in Nursing. It is designed to prepare for beginning professional practice in all fields of nursing. It also will provide a sound basis for graduate study.

Progression in learning is planned to help students attain the following objectives:

1. Ability to communicate; communication meant in the broadest terms: verbal, non-verbal, written, and mathematical.
2. Ability to make decisions based on relevant judgments.
3. Appreciation of human behavior and needs.
4. Comprehension of sciences basic to developing nursing theory and practice.
5. Competence in the technical skills of nursing care.
6. Ability to plan and perform nursing care.
7. Ability to direct care given by associated nursing personnel.
8. Ability to contribute to the health team as an effective professional.
9. Concern for the health of families and the welfare of the community.
10. Desire for continuous professional and personal development.
11. Interest in responsible citizenship.

Applicants must meet the requirements of the University of South Florida and in addition will:

1. Be interviewed by a College of Nursing faculty committee.
2. Provide evidence of satisfactory health.
3. Show evidence of high school graduation or equivalent.
Multi-disciplinary academic and research institutes are grouped under the Center for Research and Development within the Office of the Vice President of Academic Affairs. The purpose of the Center is to experiment with development of research and new academic programs which otherwise might not be initiated. Currently the Institutes are: Marine Science, Aging, Exceptional Children and Adults, Speech Pathology and Audiology, and Rehabilitation. Four graduate programs leading to a master’s degree are available in: Gerontology (Aging), Marine Science, Speech Pathology and Audiology, and Rehabilitation.

Students apply for graduate work through the Center for Research and Development and are recommended for admission by the Institute in which they plan to specialize. The general admission requirements for graduate work are given on page 150. Specific Institute requirements are listed below.

Institute on Aging

Requirements for the M.A. in Gerontology:

Students from a wide variety of undergraduate backgrounds are admitted for graduate work in gerontology. Priorities for admission and stipends are based on work experience, Graduate Record Examination scores, and grade point ratio.

The M.A. in Gerontology requires a minimum of 54 quarter hours in approved courses including 12 hours of field placement. Of the 54 hours, 47 hours must be in courses labeled “AGE.” Required courses for the M.A. degree include AGE 501, 502, 503, 507, 603, 606, 610, 691, 692, 693, 694, and 695. Majors are also required to take a minimum of 6 hours from the following: AGE 504, 509, 605, 608, 611, 612, and 585. Electives from other departments must be approved by the student’s adviser. There are no language or thesis requirements.

Marine Science Institute

The Marine Science Institute of the University of South Florida was established in the fall of 1967 with headquarters at the St. Petersburg campus, a former U.S. Maritime Base. The Tampa Bay area, with its central location in relation to the State as a whole and proximity to the great continental shelf of the Florida Gulf coast, is an ideal location for a major marine science
research and graduate teaching center. The extensive and beautifully adapted maritime base provides the Institute with the finest facilities with which a new oceanographic organization ever began its work.

Requirements for the M.A. Degree in Marine Science:

General requirements are given on pages 151-53. A minimum of 45 credits must include OGY 521, 531, 541 and 551. Students who, in the judgment of their graduate committee, have had the equivalent of one or more of these courses before entering the degree program may waive the appropriate course(s).

A thesis is required, which must be based on a marine problem in any of the areas: bacteriology, botany, chemistry, geology, physics or zoology.

Rehabilitation Institute

The Master of Arts in Rehabilitation Counseling is offered by the Rehabilitation Institute. This is a five-year master's degree sequence requiring a minimum of 60 quarter hours. A student may enter the program at the beginning of his senior year rather than after the baccalaureate degree has been granted. The following courses are considered basic to the rehabilitation counseling profession and constitute a required core for the master's program: REH 501, REH 503, REH 507, REH 610, and REH 620. In addition to these core courses, other offerings in rehabilitation counseling include REH 502, REH 504, REH 505, REH 506, REH 604, REH 605, REH 606, REH 607, and REH 621. Twenty-six quarter hours of the student's course work may be elected from related graduate programs.

Through individual counseling, vocational testing and evaluation, coordination of rehabilitation services, and a variety of related skills and techniques, the rehabilitation counselor works with other members of the rehabilitation team in assisting individuals to achieve maximum self-realization and optimal psychological, vocational, and social adjustment. The rehabilitation counselor may work in a variety of settings including State Vocational Rehabilitation agencies, hospitals, rehabilitation centers, sheltered workshops, vocational counseling centers, correctional institutions, schools for the mentally retarded or mentally ill, and other similar facilities.

Speech Pathology and Audiology Institute

The Speech Pathology and Audiology Institute was established in July of 1968 to provide a multi-disciplinary focus on USF efforts to aid individuals with communicative impairment. Professional training, research, and clinical programs are conducted by this institute. Extensive clinical facilities, faculty, and instrumentation are available at the University campus for student clinical practice.

A Master of Science degree is offered through the Speech Pathology and Audiology Institute and provides clinical emphasis. This degree program is structured to meet the preparation requirements of the American Speech and Hearing Association for the Certification of Clinical Competency. The Master of Science program is available in either Speech Pathology or Audiology.

Undergraduate students take a five-year program ending in a Master of Science degree in Speech Pathology or Audiology at USF. Students enroll in the M.S. degree program between 90 and 180 academic quarter hours. Their pro-
grams are planned through the master's degree at the time of acceptance. This program is recommended to the undergraduate student since the minimum requirement for professional work in speech pathology or audiology is now the master's degree or equivalent.

A terminal program designed to train speech and hearing technologists is also offered through the Speech Pathology and Audiology Institute. The six-month curriculum prepares junior college graduates (or students who have successfully completed 90 quarter hours of academic credit) to work under the supervision of speech pathologists or audiologists in rehabilitative settings. The preparation of students in this program involves two University quarters, or approximately 32 quarter hours of academic credit. The latter quarter consists of supervised work experience in a laboratory field setting.

Requirements for the M.S. Degree in Speech Pathology:

General requirements for graduate work are given on page 151. A minimum of 45 credits is required as well as completion of sufficient course work and practicum to meet the American Speech and Hearing Association's requirements for clinical certification in Speech. The student with an existing bachelor's degree and appropriate prerequisites may complete his degree program with the following courses:

SAI 571, 572, 573, 574, 576, 577, 578, 580, 683, (4,4), 579 or 675, 698 (6), 699 or 681 (6).

Requirements for the Combined Undergraduate/Graduate M.S. Degree in Speech Pathology:

General requirements for graduate work are given on page 151. A minimum total of 225 credits is required for the combined undergraduate/graduate M.S. program. The following courses constitute the course of study (in addition to Basic Studies requirements):

SAI 301, 302, 311, 312, 313, 498 (6), 511, 513, 598 (6), 571, 572, 573, 574, 575, 576, 577, 578, 580, 683 (4,4), 579 or 675, 698 (9), and 699 (9) or 681 (9), and 25 quarter hours of course work (approved by Speech Pathology adviser) in acoustics, phonetics, speech science, linguistics, statistics, psychology, education, mathematics, or other fields that contribute to the understanding of normal processes of speech, hearing, or language.

Requirements for the M.S. Degree in Audiology:

General requirements for graduate work are given on page 151. A minimum of 45 credits is required as well as completion of sufficient course work and practicum to meet the American Speech and Hearing Association's requirements for clinical certification in Audiology. The student with an existing bachelor's degree and appropriate prerequisites may complete his degree program with the following courses:

SAI 571, 572, 573, 574, 580, 683 (4,4), 673, 674, 675, 676, 677, 698 (6), and 699 (6) or 681 (6).

Requirements for the Combined Undergraduate/Graduate M.S. Degree in Audiology:

General requirements for graduate work are given on page 151. A minimum of 225 credits is required for the combined program. The following courses constitute the course of study (in addition to Basic studies requirements):

SAI 301, 302, 311, 312, 313, 498 (6), 512, 513, 598 (6), 571, 572, 573, 574, 580, 683 (4,4), 673, 674, 675, 676, 698 (9), 699 (9) or 681 (9), and 25 quarter
hours of course work (approved by an Audiology adviser) in acoustics, phonetics, speech science, linguistics, statistics, psychology, education, mathematics or other fields that contribute to the understanding of normal processes of speech, hearing or language.

Institute III: Exceptional Children and Adults

Institute III serves four major functions on the University campus. First, the Institute staff plan and execute projects of theoretical and practical significance for the care and education of exceptional children and adults. Second, the activities carried out within the Institute are interdisciplinary in nature and serve to bring together individuals from a broad spectrum of professional backgrounds. Third, the Institute serves as a focal point for research and evaluation activities related to exceptional children and adults of agencies located outside the University community. And fourth, the Institute provides practicum settings within which students can gain experience in participating in on-going field research. Two major continuing Institute projects are: (1) The early identification and remediation of learning problems in elementary school children in an attempt to increase success in the regular classroom; and (2) The evaluation of the Guided Group Interaction program for male delinquent youths at the Walter Scott Criswell House.

Southwest Campus (Science Center, Chemistry and Life Science Buildings)
GRADUATE STUDY

All graduate programs at the University of South Florida are administered by the colleges concerned as upper extensions of the undergraduate colleges. The college deans are responsible for graduate as well as undergraduate administration in each of their respective colleges.

The Graduate Council is a University-wide body composed of representatives of each college, appointed by the President, and advisory to him and to the Vice President for Academic Affairs on policies and curricular matters pertaining to graduate study. The Graduate Council is charged with maintaining the excellence of all graduate programs.

The Assistant Dean of Academic Affairs for Graduate Studies is permanent chairman of the Graduate Council and thus serves the function of Graduate Dean for the University. In this role he does not have a line relationship with other offices of the University, but helps coordinate graduate study and provides supervising service and advice to the administering offices of the several colleges. His office also coordinates actions involving the Registrar's office, Office of Admissions, Computer Research Center, and the academic colleges in administrative functions related to graduate admissions and record keeping. In collaboration with the Graduate Council, his office exercises overall review and supervision of all graduate programs, provides leadership in evolving new programs, and insures the establishment and maintenance of high standards for existing programs.

The Graduate Council is the final approving body for adding, altering, or deleting any courses that graduate students would normally take (i.e., those bearing course numbers 500 or above). The office of the Assistant Dean of Academic Affairs and the Graduate Council have the function of stimulating and assisting departments, divisions, and colleges to move ahead into graduate programs as rapidly as appropriate. The Council is the final campus agency to act on proposed graduate programs intended to lead to an advanced degree before these proposals are forwarded to the Board of Regents for their final action. The Council also establishes University-wide entrance requirements for all graduate programs, although each college is permitted to make even more stringent admission rules for their own programs. The Graduate Council sits as a deliberative body on petitions to consider waiver of any requirements and to act in cases of jurisdictional disputes.

The Graduate Council conducts reviews to determine that University requirements for advanced degrees are being met and that there are not unauthorized deviations from programs. To accomplish these reviews the office of the Assistant Dean of Academic Affairs is charged with the periodic preparation of: (1) a report on the admission practices of all departments of the University; (2) a study of the retention practices of the departments; (3) a list of theses and dissertations submitted as partial fulfillment of requirements for advanced degrees; and (4) a review of the completed programs of students certified as eligible for advanced degrees.
Master's Degree Programs Offered

COLLEGE OF BUSINESS ADMINISTRATION
Master of Business Administration
Master of Accountancy
Master of Science degree in Management
Master of Arts degree in Economics

COLLEGE OF EDUCATION
Master of Arts degree programs in:
- Art Education
- Elementary Education
- English Education
- Foreign Language
  - French
  - German
  - Spanish
- Guidance
- Humanities Education
- Library and Audio-Visual
- Mathematics Education
- Music Education
- Physical Education
- Reading Education
- Science Education
- Social Science Education
- Speech Education
Special Education, with specialization in:
  - Emotionally Disturbed
  - Gifted
  - Mental Retardation
  - Potentially Handicapped (N-3)
  - Speech Pathology (5-year program)
Vocational and Adult Education, with specialization in:
  - Adult Education
  - Distributive Education
  - Business and Office Education
  - Industrial-Technical Education
Junior College Teaching
- Astronomy
- Botany
- Chemistry
- Engineering
- English
- French
- Geography
- Geology
- History
  - Mathematics
  - Microbiology
  - Physics
  - Political Science
  - Psychology
  - Sociology
  - Spanish
  - Speech
  - Zoology

COLLEGE OF ENGINEERING
Master of Engineering
Master of Science in Engineering (post-baccalaureate, or 5-year BSE/MSE programs)
COLLEGE OF LIBERAL ARTS
Master of Arts degree programs in:
- Astronomy
- Bacteriology
- Botany
- English
- French
- Geography
- Geology
- History
- Linguistics
- Mathematics
- Philosophy
- Physics
- Political Science
- Psychology
- Sociology
- Spanish
- Speech
- Zoology

Master of Fine Arts degree in Visual Arts
Master of Music
Master of Science degree in Chemistry

CENTER FOR RESEARCH AND DEVELOPMENT
Master of Arts degree programs in:
- Gerontology
- Marine Science
- Rehabilitation Counseling

Master of Science degree program:
Clinical Speech Pathology and Audiology (5-year program)

Intermediate Programs Offered

COLLEGE OF EDUCATION
Education Specialist (Ed.S.)

Ph.D. Programs Offered

COLLEGE OF EDUCATION
Doctor of Philosophy degree in Education

COLLEGE OF LIBERAL ARTS
Doctor of Philosophy degree programs in:
- Biology
- Chemistry
- English
- Mathematics
- Psychology

Procedures for Applying
See instructions on page 14. Graduate students are also advised to apply early. A 15 dollar non-refundable application fee must accompany the application unless the student has been previously enrolled and paid the fee at the University. Two official transcripts from every college attended must be submitted directly to the Office of Admissions.
Requirements for Admission to Graduate Study

DEGREE SEEKING GRADUATE STUDENTS

Admission requirements for a degree-seeking graduate student shall include:
1. A baccalaureate degree or its equivalent from an approved college or university.
2. A "B" average or better in all work attempted while registered as an upper division student working for a baccalaureate degree or a total Quantitative-Verbal Graduate Record Examination score of 1000 or higher or an equivalent score on an equivalent measure approved by the Board of Regents. These examinations must have been taken within five years preceding application for admission and the official report of the scores must be submitted to the Office of Admissions.
3. Approval by an official of the program for which the student is applying.
4. Any additional requirements specified by his program.
5. Two official transcripts from all institutions attended submitted to the Office of Admissions.
6. Completed Confidential Personal Student Questionnaire sent from the last institution attended, directly to the Dean of Students at the University of South Florida.
7. Foreign students are required to present satisfactory scores on the Test of English as a Foreign Language.
8. Students accepted as undergraduates into an approved program leading directly to a graduate degree need not comply with 1 and 2, above.
9. A student's acceptance into graduate study will remain active for up to five years while he is in the Armed Services. A minimum of six weeks' notice prior to re-registration will be required to give the Office of the Registrar time to reactivate the student's file and screen his application in the light of updated information.

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 and only after acceptance as a degree seeking student:
1. 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. (Does not apply to students accepted as undergraduates into an approved program leading directly to a graduate degree.)
2. 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.
3. The course must be approved by his major adviser.

FOREIGN STUDENTS

Foreign students must comply with the requirements for admission to graduate study in addition to those listed on page 17.
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.

GRADUATE ASSISTANTSHIPS, SCHOLARSHIPS, AND FELLOWSHIPS

Students should inquire directly to the head of the department in which they plan to major.

Regulations Governing Graduate Study

Master's Degree

MAJOR PROFESSOR

An adviser will be appointed for the student in his first term of work. The major professor will be designated by the chairman of the department or area in which the degree is sought upon a mutual recommendation from the student and professor concerned.

SUPERVISORY COMMITTEE

Students working toward a thesis degree will have the benefit of a supervisory committee. The committee, consisting of the major professor and at least two other members of the department or area in which the degree
is sought, will be appointed by the appropriate chairman upon recommenda-
tion from the student and his major professor. The committee will approve 
the course of study for the student, supervise his research, and accept his 
thesis.

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 8 hours of 400 level courses 
if taken as part of a planned degree program. Additional graduate credit may 
be earned in 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).

Any graduate student who at the end of a quarter is not in good standing 
under the requirements for his degree as published, shall be considered to be on 
probationary status. Such a student may be dropped from degree seeking status 
after one quarter of probation by the dean of his college. Notification of pro-
bation shall be made to the student in writing by his major adviser, with a copy to 
the college dean. At the end of the probationary quarter, the major adviser 
shall recommend to the college dean, in writing, one of three alternatives: (1) 
removal of probationary status; (2) continued probation; or (3) drop from degree 
program. Every effort will be made during the probationary period to aid the 
student in reestablishing his standing.

APPEALS

Graduate students may appeal actions regarding their academic status:
1. In actions based on departmental requirements, the student may 
appeal first to his department through his major adviser, then to 
the college dean or his representative, and then to the Graduate Council, 
if necessary.

2. In actions based on the University minimum requirements, appeal 
shall be made directly to the Graduate Council.

Reports of actions and appeals will be maintained in the student’s permanent 
departmental file.

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.

Transfer credits must be posted to the student’s permanent record no later than one full term prior to his graduation. It is the student’s responsibility to make certain that the official who is to certify him for graduation properly notifies the Office of the Registrar regarding transfer credits.

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

Each student who plans to complete his graduation requirements by the end of a term must complete the Application for Graduation within 15 days after the beginning of the term in which he will graduate. The application is available at, and after completion must be returned to, the Registrar’s Office.

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, an original and one copy of the approved thesis must be submitted to the Assistant Dean of Academic Affairs at least 30 days before the end of the quarter in which the student is to receive his degree. Only after the thesis and the copy have been approved for filing in the University Library can the student be certified for his degree. The thesis should conform to the guidelines in the Handbook of Graduate Theses and Dissertations available in the University Bookstore.

SECOND MASTER’S DEGREE

A second master’s degree may be granted as long as there is no duplication of credit. If there is any duplication of credit, the request must be considered by the Graduate Council.

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 is not conferred solely upon 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 toward the 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, normally during the first term of residency and upon recommendations from the student and his major professor, a supervisory committee shall be appointed for the student by the chairman of the department or area in which the degree is sought. This committee shall approve the course of study to be followed by the student, conduct his qualifying examinations, supervise his research, and conduct his final oral examinations. The major professor 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. 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. 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 Graduate Council. The total of transfer (see Transfer Credit, page 153) and off-campus work together should not exceed one half of the planned program and neither is finally accepted until such work has been accepted as appropriate by the student’s supervisory committee. Any question of the appropriateness of transfer and off-campus courses will be resolved by the Graduate Council.

RESIDENCY

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 a minimum of nine hours of graduate work per term, or the chairman of the student’s advisory committee may certify that the student be considered as in full time residence. The student 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 shall 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 shall 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 Assistant Dean for 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)
Afro-American Studies (AFA)
American Studies (AMS)
Anthropology (ANT)
Astronomy (AST)
Basic Studies (CBS)
Biology (BIO)
Botany (BOT)
Chemistry (CHM)
Classics and Ancient Studies (CLS)
Cooperative Education (COE)
Dance (DAN)
Developmental Courses:
  Developmental Reading (DRE)
  Developmental Mathematics (DMA)
  Developmental Study Skills (DRS)
Economics (ECN)
Education:
  Art Education (EDA)
  Curriculum (EDC)
  Elementary Education (EDE)
  English Education (EDT)
  Foreign Language Education (EDX)
  Foundations (EDF)
  Guidance (EDG)
  Humanities Education (EDY)
  Junior College Education (EDH)
  Library-Audiovisual Education (EDL)
  Music Education (EDM)
  Natural Science-Mathematics Education (EDN)
  Physical Education for Teachers (EDP)
  Measurement-Research-Evaluation (EDQ)
  Reading Education (EDR)
  Social Studies Education (EDW)
  Special Education (EDS)
  Vocational and Adult Education (EDV)
Engineering:
Basic Engineering (EGB)
Electrical and Electronic Systems (EGE)
Energy Conversion and Mechanical Design (EGR)
Industrial Systems (EGS)
Structures, Materials, & Fluids (EGX)
Computer Service Courses (ESC)
Engineering Technology (ETK)

English (ENG)
Environment (ENV)
Finance (FIN)
Fine Arts, Intradivisional (FNA)
General Business Administration (GBA)
Geography (GPY)
Geology (GLY)
Gerontology (AGE)
History (HTY)
Humanities (HUM)
Interdisciplinary Language-Literature (LLI)
Linguistics (LIN)
Management (MAN)
Marine Science (OGY)
Marketing (MKT)

Mass Communications (COM)
Mathematics (MTH)
Medicine (MED)
Modern Languages:
French (FRE)
German (GER)
Italian (ITA)
Portuguese (POR)
Romance (ROM)
Russian (RUS)
Spanish (SPA)
Music Arts (MUS)
Off-Campus Term (OCT)
Philosophy (PHI)
Physical Education, Basic (PEB)
Physics (PHY)
Political Science (POL)
Psychology (PSY)
Rehabilitation (REH)
Religious Studies (REL)
Social Sciences, Interdisciplinary (SSI)
Sociology (SOC)
Speech (SPE)
Speech Pathology & Audiology (SAI)
Theatre Arts (TAR)
Visual Arts (ART)
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.

Some courses are graded on an “S-U” (pass-fail) basis, and are so identified in the quarterly course schedules.

ACCOUNTING

Faculty: Jurgensen, chairman; Antonio, Deyo, Harris, Hubbard, Keith, Lasseter, McChung, Merriam, Moon, Roberson, Rouadí, J. L. Smith, West.

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 301. INTERMEDIATE ACCOUNTING (5)
PR: ACC 305 or Concurrent Registration in ACC 305. Measurement theory and methodology underlying income measurement and reporting of financial position. The study of working capital including cash, receivables, inventories, and current liabilities.

ACC 302. INTERMEDIATE ACCOUNTING (5)
PR: ACC 301. Continuation of theory and principles underlying financial statements, time value analysis, long-term liabilities, plant and equipment, investments, intangibles, owner’s equity, tax allocation, and funds flow analysis.

ACC 305. ACCOUNTING FOR MANAGEMENT CONTROL (3)
PR: ACC 202. Study of accounting from user’s point of view. Includes measure-
ment theory, use of financial statements, and accounting measurement in planning and control.

**ACC 401. ADVANCED ACCOUNTING (3)**

**ACC 402. CONSOLIDATED FINANCIAL STATEMENTS (3)**
PR: ACC 302. Accounting for home office and branch operations and business combinations.

**ACC 405. ACCOUNTING INFORMATION SYSTEMS (3)**
PR: ACC 302. General systems theory, total systems concept, internal control problems, and computer based accounting systems.

**ACC 411. FEDERAL TAXES (3)**
PR: ACC 202. 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 AND CONTROL (5)**
PR: FIN 301 and ECN 331. Deals with relevant cost for decision making: capital budgeting; inventory planning and control; standard, job order, and process costing.

**ACC 423. AUDITING (3)**
PR: ACC 302 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 483. SELECTED TOPICS IN ACCOUNTING (1-5)**
PR: CI. The course content will depend on student demand and instructor’s interest.

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**FOR SENIOR LEVEL AND GRADUATE STUDENTS**

**ACC 501. ACCOUNTING CONCEPTS AND METHODOLOGY (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 (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.

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**FOR GRADUATE STUDENTS ONLY**

**ACC 601. MANAGERIAL ACCOUNTING AND CONTROL (3)**
PR: Business Core or equivalent. 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. DEVELOPMENT OF ACCOUNTING THOUGHT (3)**
PR: 24 quarter hours in accounting or CI. A study and evaluation of the development and evolution of current account theory and measurement concepts. The definition of accounting objectives and goals and the development of measurement models.

**ACC 606. CONTEMPORARY ACCOUNTING THOUGHT (3)**
PR: ACC 605 or CI. Concentrated study of current problems areas in the field of accountancy.

**ACC 607. SYSTEMS THEORY AND QUANTITATIVE APPLICATIONS (3)**
PR: ACC 602 or equivalent. 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 611. FEDERAL TAX RESEARCH AND PLANNING (3)**
PR: ACC 411 or CI. 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 AND CONTROL (3)**
PR: 24 quarter hours in accounting or CI. 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. ETHICS AND RESPONSIBILITIES IN PROFESSIONAL ACCOUNTANCY (3)**
PR: ACC 423 or equivalent. 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.

**ACC 681. INDEPENDENT RESEARCH (1-6)**
PR: CI. Directed studies along lines of student’s research.

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**AFRO-AMERICAN STUDIES**

Faculty: J. Dudley, coordinator, McDonald, W. A. Smith.

**AFA 130. INTRODUCTION TO AFRO-AMERICAN STUDIES (4)**

**AFA 261-262. AFRO-AMERICAN HISTORY (4, 4)**

**AFA 302. SOCIAL INSTITUTIONS AND THE GHETTO (4)**
PR: AFA 130 or CC. A study of social institutions as they relate to the American Black ghetto, with emphasis on social systems operating within and on the ghetto.

**AFA 310. BLACK AMERICANS IN THE ECONOMIC PROCESS (4)**
PR: AFA 130 or CC. Brief economic history of Black America emphasizing the impact of racial discrimination and evaluating proposals for improvement as they apply to Black Americans and other minority groups.

**AFA 410. CONTEMPORARY BLACK PHILOSOPHY (4)**
PR: AFA 13 or CC. Major themes and participants in the Black liberation movement since 1950.

**AFA 481. RESEARCH AND FIELD STUDIES (1-4)**
PR: AFA 130 or CC. Required of all senior majors. A course linking the study
pursued by the student with research and work projects in the Tampa Black community.

**AFA 483. DIRECTED READINGS (1-4)**
PR: AFA 130 or CC. Independent readings in a particular area of Afro-American Studies, selected by student and instructor.

**AFA 491. SENIOR SEMINAR (4)**
PR: AFA 130 or CC. In-depth study of a particular topic in the area of Afro-American Studies. Individual research by students required.

## AMERICAN STUDIES

**Faculty:** H. M. Robertson, chairman; D. Harkness, Moore, W. Morgan O'Hara, E. Stanton, Warner.

**AMS 301. INTRODUCTION TO AMERICAN CIVILIZATION (5)**
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 (5)**
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 (5)**
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 (5)**
Selected writing and other pertinent material 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 American Environment; Eminent Americans; The American City: Past, Present and Future; The American Dream: Reality and Myth.

**AMS 481. INDIVIDUAL RESEARCH (1-5)**
The content of the course will be governed by student demand and instructor's interest. Instructor's approval required prior to registration.

**AMS 483. SELECTED TOPICS IN AMERICAN STUDIES (4)**
Offerings to include Cultural Darwinism; 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)**

## ANTHROPOLOGY

**Faculty:** Grange, chairman; Frazier, Kessler, Kushner, Mudgett, Stout, R. Waterman, J. R. Williams.

**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.

ANT 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.
ASTRONOMY 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
See VISUAL ARTS

ASTRONOMY

Faculty: Eichhorn-von Wurmb, chairman; Devinney, J. Hunter, Sofia, C. A. Williams, R. E. Wilson.

AST 203. DESCRIPTIVE ASTRONOMY I (5)
Aspects of the sky, the solar system. A nonmathematical course for those who are mainly interested in a qualitative treatment of the ideas about the physical universe. No credits for Astronomy majors.

AST 204. DESCRIPTIVE ASTRONOMY II (5)
The stars, the universe. A nonmathematical course for those who are mainly interested in a qualitative treatment of the ideas about the physical universe. No credit for Astronomy majors.

AST 301. INTRODUCTORY ASTRONOMY (5)
PR: MTH 101. 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 302. INTRODUCTORY ASTRONOMY (5)
PR: AST 301 or CI. The stars, stellar atmosphere and interiors, interstellar matter, the local and exterior galaxies, cosmology.

AST 351. HISTORY OF THE SCIENCE OF ASTRONOMY (5)
To familiarize seriously interested students with the history of Astronomy and the influence of this discipline of the development of human knowledge.

AST 361. ASTRONOMICAL OBSERVING AND MEASURING (1-3)
PR: AST 301 and 302 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)
PR: AST 302 and MTH 304. Astronomical coordinate systems and their mutual relationships, navigation, time.

AST 443. STELLAR ASTROPHYSICS (5)
PR: AST 302 or CI, MTH 303. 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. (S/U grade only.)

AST 491. ASTRONOMY SEMINAR (1)
PR: Senior or advanced junior standing. May be repeated twice. (S/U grade only.)

FOR SENIOR LEVEL AND GRADUATE STUDENTS

AST 521. INTRODUCTION TO CELESTIAL MECHANICS (5)
PR: AST 302, 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 302 or CI, MTH 305. Principles used to find the properties of astrometric, eclipsing, spectroscopic and visual binaries.

AST 533. STELLAR CONSTITUTION AND EVOLUTION (4)
PR: AST 443 or CI, PHY 405. CR: MTH 405. Internal constitution of stars, physics of gas spheres, energy generation in stars, theories of stellar evolution.

AST 536. INTRODUCTION TO RADIO ASTRONOMY (4)

AST 583. SELECTED TOPICS IN ASTRONOMY (1-6)
PR: Senior or advanced junior standing or CI. Intensive coverage of special topics to suit needs of advanced students.

FOR GRADUATE STUDENTS ONLY

AST 611. POSITIONAL ASTRONOMY (6)
PR: AST 413 or CI. The accurate determination of relative and absolute star positions and related problems.

AST 621. CELESTIAL MECHANICS (6)
PR: AST 521 or CI. Dynamics of the planetary system, space flight, theory of artificial satellites.

AST 631. STELLAR ATMOSPHERES (4)
PR: AST 443 & MTH 406 or CI. Basic observational data. Thermodynamics of the gaseous state. Elements of spectroscopy. The transfer equation (continuum and lines). The problem of calculation of atmospheres.

AST 661. PHOTOMETRY (4)
PR: AST 302 or CI. MTH 305. Theoretical, observational and instrumental concepts required in astronomical photometry.

AST 663. STATISTICAL REDUCTION OF OBSERVATIONS (6)
PR: MTH 323, 445, or equivalents or CI. The theory of statistical adjustments (least squares) and applications.

AST 681. GRADUATE RESEARCH (1-15)
PR: CI.

AST 683. SELECTED TOPICS IN ASTRONOMY (1-6)
PR: CI.

AST 688. RECENT ADVANCES IN ASTRONOMY WITH EMPHASIS ON THEIR IMPACT ON COLLEGE-LEVEL COURSES (3-6)
Not applicable toward thesis degree requirements. A course designed to consider and study the recent developments of Astronomy, especially those developments that
have an effect on altering the basic concepts and ideas of the field and imply a change in the presentation of introductory material in the field. (S/U grade only.)

**AST 689. DIRECTED TEACHING (3-9)**
Not applicable toward thesis degree requirements. A formalized, structured activity wherein a faculty member, by discussion and assignments, considers the principles, rationale, and modus operandi of elementary college courses. Designed to train teaching assistants and to provide help and training to those graduate students who plan to follow a college teaching profession. (S/U grade only.)

**AST 691. GRADUATE SEMINAR (2)**
PR: CI.

**AST 699. MASTER’S THESIS (1-9)**
PR: CI. (S/U Grade only.)

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**BASIC STUDIES**

**Faculty:**


*Biological Science:* Ray, chairman; Latina, Merner, Nelson, G. Robinson, Summer, Tipton.


*Humanities:* Kiefer, chairman; T. Burns, Conway, C. Cooper, Gowen, Hoffman, Juergensen, Kashdin, Koenig, MacKay, McRae, Rutenberg, Shackson, Spillane, Watkins, Zylstra.


**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. FRESHMAN ENGLISH (4, 4)**
Instruction and practice in the skills of writing and reading. 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 111-124 (5, 5), CBS 211-224 (4, 4) BEGINNING AND INTERMEDIATE MODERN LANGUAGES**

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<th>FIRST YEAR</th>
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<td>CBS 111-112</td>
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*French* | *German* |
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| *Russian* | *Spanish* |
| *Italian* | *French* |

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Note: CLS 101-102-103 (Elementary Latin) may be substituted for first-year Beginning Modern Language; CLS 201 plus two out of CLS 202, 301, 302, 303, for second-year Intermediate Modern Language.

Portugese 326-327 or Language 383-483 may be substituted for second-year Intermediate Modern Language.

CBS 111 to 124. BEGINNING MODERN LANGUAGES I & II (5,5)
Initiate development of speaking, understanding, reading, and writing of the modern foreign language at the elementary level.

CBS 211 to 224. INTERMEDIATE MODERN LANGUAGES I & II (4, 4)
Continue development of skills at the intermediate level, including the grammatical framework of the language.

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, 255, 206, 256, 207, 257. PROBLEMS IN BIOLOGICAL SCIENCE (3, 3, 3)
The application of basic biological principles to relevant problems and topics such as: 205-Foods, drugs and medicine, 255-Sex, reproduction and population, 206-Genes and people, 256-Evolution, 207-Environment, 257-Contemporary books. Elect any three of the 3-credit hour options.

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. THE AMERICAN IDEA (5,4)
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 315-316-317-308. THE HUMANITIES (5, 5, 5, 4)
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 (5,5,5)
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. SCIENCE AND HUMAN LIFE (5,5)**
The role of science in society; the manner in which science is organized, how it operates, and its harmonious and conflicting relationships with other fields of knowledge.

**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

(See also Botany and Zoology)

**Faculty:** Silver, acting chairman; Alvarez, Bachmann, Betz, Briggs, Brown, Burch, Cowell, Dawes, Eilers, Friedl, Krivanek, Lawrence, Linton, Long, Mansell, McClung, McDarmid, Meyerrieks, Simon, Snyder, Swihart, Woollenden.

*Adjunct:* Binford, Humm., Layne, Wagner-Merner.

**BIO 201. FUNDAMENTALS OF BIOLOGY I (4)**
A phylogenetic survey of the major animal groups accompanied by dissection of selected types. lec-lab. Qtr. I.

**BIO 202. FUNDAMENTALS OF BIOLOGY II (4)**
An introduction to plant science; fundamentals of plant biology. lec-lab. Qtr. II.

**BIO 203. FUNDAMENTALS OF BIOLOGY III (4)**
Origin and early evolution of life; Mendelian and population genetics; elementary ecology. lec. Qtr. III.

**BIO 315. MICROTECHNIQUE (5)**
PR: BIO 201-203. Theory and practice of tissue fixation, imbedding, sectioning, and staining; chromosomal squash preparations; nuclear isolation techniques; photomicrography. lec-lab. (formerly BOT 315)

**BIO 331. GENERAL GENETICS (5)**
PR: BIO 201-203. Introduction to genetics including aspects of Mendelian, molecular, and population concepts. lec-lab. Qtr. I, III, IV.

**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. Qtr. II.

**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 microbiology. lec-lab. Qtr. I, II, III, and IV. (formerly BOT 351)

**BIO 372. MAN, MICROBE AND MOLECULE (for non-specialists) (3)**
PR: None. Origin of life, control of diseases, environmental quality and the use of microorganisms as tools in searching for molecular explanations of living phenomena. Qtr. II and IV (formerly BOT 372)

**BIO 421. CELL PHYSIOLOGY (5)**
PR: BIO 331 and CHM 351 or 335. Physico-chemical properties of cells, enzyme function, intermediary metabolism, photosynthesis, function of nerves and muscles. lec-lab. Qtr. II (formerly ZOO 421)
BIO 422. DEVELOPMENTAL BIOLOGY (5)
PR: BIO 421 or BIO 510. Structural and functional events involved in differentiation and morphogenesis. lec-lab. Qtr. III. (formerly ZOO 422)

BIO 445. PRINCIPLES OF ECOLOGY (4)
PR: BIO 201-203 or CBS 205-207. An introduction to the basic principles and concepts of ecology at the ecosystem, community, and population level of organization. lec-disc. Qtr. I and IV.

BIO 451. APPLIED BACTERIOLOGY (5)
PR: BOT 351. A study of the applications of microbiology to industry, agriculture, medicine, and sanitary engineering. lec-lab. Qtr. IV (formerly BOT 451)

BIO 465. 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. Qtr. I (even-numbered years).

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 510. CYTOLOGY (4)
PR: BIO 201-203. Survey of the structure and function of cytoplasmic and nuclear components of plant and animal cells. lec-lab. (formerly BOT 510)

BIO 515. SUBCELLULAR CYTOLOGY (4)
PR: BIO 201-203. A review of biophysical techniques used in biology to include an introduction to X-ray diffraction, bright field, phase, ultraviolet, interference, and electron microscopy. The course will consist of three hours of lecture and one three-hour lab for demonstration of techniques. lec-lab. (formerly BOT 515)

BIO 518. MEDICAL MYCOLOGY (5)
PR: BIOL 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. Qtr. I (formerly BOT 518)

BIO 532. MOLECULAR GENETICS (4)
PR: BIO 331. Detailed examination of DNA, RNA, and protein synthesis; the effects of mutations on proteins; cellular control; selected aspects of viral, bacterial, and fungal genetics. lec-lab. Qtr. II (formerly BOT 532)

BIO 552. ADVANCED BACTERIOLOGY (5)
PR: BIO 351. Ultrastructure, growth, metabolism, genetics, and ecology of the bacteria and related procaryotes. lec-lab. Qtr. III (formerly BOT 552)

BIO 553. DETERMINATIVE BACTERIOLOGY (5)
PR: BIO 351 or equivalent; CHM 331-336 or equivalent. Survey of bacterial classification; detailed examinations of bacteria important to man in agriculture, in industry, and as pathogens. lec-lab. Qtr. II (formerly BOT 553)

BIO 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. Qtr. I lec-lab. (formerly BOT 557)

BIO 583. SELECTED TOPICS IN MICROBIOLOGY (1-4)
PR: CI. Each topic is a course in directed study under supervision of a faculty member.

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 609. BIO CHEMICAL SYSTEMATICS (4)
PR: CI. A research oriented course on the acquisition and use of biochemical information in animal systematics. lec-lab. (formerly ZOO 609)

BIO 610. CYTOCHEMISTRY (4)
PR: BIO 201-203, 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. (formerly BOT 610)

BIO 611. EXPERIMENTAL EMBRYOLOGY (4)
PR: BIO 421-422 and CI. Lectures, laboratories, readings and discussions relating to contemporary advances in the area of biochemistry of development. Experimental techniques will be studied. (formerly ZOO 611)

BIO 615. ULTRASTRUCTURE TECHNIQUES IN ELECTRON MICROSCOPY (6)
PR: BIO 201-203, BIO 515 or CI. Discussion of theory and techniques in electron microscopy. Emphasis on preparation of biological specimens, electron microscopic optics and use of the electron microscope. lec-lab. (formerly BOT 615)

BIO 616. BIOMETRY (4)
PR: MTH 211-213 or CI. An introduction to statistical procedures for research in the biological sciences. Experimental design, analysis of data and presentation of results are emphasized. (formerly ZOO 616)

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 652. 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. (formerly BOT 652)

BIO 654. BACTERIAL GENETICS (3)
PR: BIO 331, BIO 351, BIO 652 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. (formerly BOT 654)

BIO 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. (formerly BOT 655)

BIO 665. ADVANCED ORGANIC EVOLUTION (3)
PR: BIO 331; BIO 465 or equivalent, and CI. Advances in organic evolution with emphasis on speciation theory, phylogeny, behavior, and human evolution.

BIO 683. SELECTED TOPICS IN MICROBIOLOGY (1-4)
PR: CI. (S/U grade only.)

BIO 688. RECENT ADVANCES IN MICROBIOLOGY WITH EMPHASIS ON THEIR IMPACT ON COLLEGE-LEVEL COURSES (3-6)
Credit not applicable toward thesis degree requirements.
PR: Graduate Standing. A course designed to consider and study the recent developments of a given field, especially those developments that have an effect on altering the basic concepts and ideas of the field and imply a change in the presentation of introductory material in the field. (S/U grade only)

BIO 689. DIRECTED TEACHING (3-9)
Credit not applicable towards thesis degree requirements.
PR: Graduate Standing. Supervision of the teaching of graduate teaching assistants in elementary and/or laboratory courses. (S/U grade only.)

BIO 691. GRADUATE SEMINAR (1)
(S/U grade only.)
BIO 699. MASTER'S THESIS (1-15)
PR: CI. (S/U grade only.)

BIO 781. GRADUATE RESEARCH (1-15)
PR: CI. Directed research on selected topics. May be repeated.

BIO 783. SELECTED TOPICS IN MICRÓBIOLOGÍA (1-4)
PR: CI. (S/U grade only.)

BIO 799. PH.D. DISSERTATION (1-12)
PR: CI. May be repeated to a maximum of 12 credits.

BOTANY
(See also Biology and Zoology)

BOT 302. EVOLUTIONARY SURVEY OF THE PLANT KINGDOM (5)
PR: BIO 201-203. The major plant divisions, including the algae, fungi, mosses, liverworts, ferns and fern allies, and seed plants considered from an evolutionary perspective. lec-lab.

BOT 311. SYSTEMATIC BOTANY (5)
PR: BIO 201-203 or CI. Identification and classification of the more interesting vascular plants of Florida; angiosperm evolution; principles of taxonomy. Conducted largely in the field.

BOT 313. HORTICULTURAL BOTANY (3)
PR: Course in botany, biology, or CI. Application of principles of botany to give an understanding of basic horticultural operations; seed sowing, dormancy, growth requirements, vegetative propagation, pruning, and related problems. lec-lab.

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. PLANTS AND MAN (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 412. INTRODUCTION TO TROPICAL BOTANY (3)
PR: BIO 201-203. Natural history of plants in the tropics with illustrations of broad principles of their evolution, taxonomy, ecology, and functional morphology. lec-lab.

BOT 417. MYCOLOGY (5)
PR: BIO 201-203. A survey of the fungi with emphasis on their taxonomy, morphology, physiology, and economic importance. 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 481. UNDERGRADUATE RESEARCH (1-6)
PR: Senior standing and CI. Individual investigations with faculty supervision. (S/U Grade only)

BOT 491. SEMINAR IN BOTANY (1)
PR: Senior or advanced junior standing and CI. May be repeated once. (S/U Grade only)

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 517. PHYSIOLOGY OF THE FUNGI (5)**
PR: BOT 417, BIO 510 or CI. The metabolism, morphogenesis, and genetics of the fungi. lec-lab.

**BOT 521. PHYSIOLOGY OF PLANT GROWTH AND DEVELOPMENT (3)**
PR: BOT 421, BIO 201-203 and CI. A study of plant development with emphasis of the role of light and growth hormones on the process of flowering, fruit set, ripening, and senescence.

**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 546. 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 547. 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 583. SELECTED TOPICS IN BOTANY (1-4)**
PR: CC. Each topic is a course in directed study under supervision of a faculty member.

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**FOR GRADUATE STUDENTS ONLY**

**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 612. BIOLOGY OF TROPICAL PLANTS (3)**
PR: BOT 412. Special topics in the systematics, morphology, physiology, genetics, and ecology of tropical plants with consideration of habitat diversity that leads to rich florals. lec.

**BOT 613. LABORATORY IN TROPICAL PLANTS (2)**
PR: Must be taken concurrently with BOT 612. Extended field trip to some area of the New World Tropics to examine major types of vegetation and gain familiarity with field techniques; research problem development. lab.*

**BOT 621. PLANT METABOLISM LECTURE (3)**
PR: BOT 421, CHM 336 or CI. A study of plant metabolism with emphasis on the biosynthetic pathways and their regulation.

**BOT 622. PLANT METABOLISM LABORATORY (4)**
PR: BOT 421, CHM 336 or CI. An intensive exposure to the methods used in experimenting with plant material.

**BOT 681. GRADUATE RESEARCH (1-9)**
PR: CI. (S/U Grade only.)

**BOT 683. SELECTED TOPICS IN BOTANY (1-4)**
PR: CC. (S/U Grade only.)

**BOT 688. RECENT ADVANCES IN BOTANY WITH EMPHASIS ON THEIR IMPACT ON COLLEGE-LEVEL COURSES (3-6)**
Credit not applicable toward thesis degree requirements.
PR: Graduate Standing. A course designed to consider and study the recent developments of a given field, especially those developments that have an effect on altering the basic concepts and ideas of the field and imply a change in the presentation of introductory material in the field. (S/U Grade only.)

**BOT 691. GRADUATE SEMINAR (1)**
(S/U Grade only.)

* Students will be required to pay travel expenses for field trip.