Accent
on
Learning

GENERAL CATALOG
OF THE
UNIVERSITY OF SOUTH FLORIDA
1966-67

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UNIVERSITY OF SOUTH FLORIDA
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VISITING THE UNIVERSITY

Prospective students are invited to visit the University whenever possible. Normal office hours are 8 a.m. to 5 p.m., Monday through Friday. Given advance notice, the Registrar’s Office will arrange tour guides for visiting groups.

The University is located on Fowler Avenue (State Route 582) approximately two miles east of Nebraska Avenue (U.S. Route 41).

CORRESPONDENCE

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

- **Application and admission information**
  - Director of Admissions, Registrar’s Office

- **Conferences and workshops**
  - Center for Continuing Education

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

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

- **Evening classes**
  - Center for Continuing Education

- **Financial assistance**
  - Director of Financial Aids

- **Graduate study**
  - Office of the Dean of the appropriate college

- **Gifts and bequests**
  - University of South Florida Foundation

- **Facilities for handicapped students**
  - Dean of Student Affairs

- **Housing assistance**
  - Housing Office, Auxiliary Services

- **Placement and employment**
  - Division of Personnel Services

- **Transcripts and records**
  - Registrar’s Office

- **General Information**
  - Registrar’s Office

University of South Florida
Tampa, Florida 33620

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(Area Code 813)

The University of South Florida reserves the right to withdraw or change the announcements included in this Bulletin.

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ACADEMIC CALENDAR

TRIMESTER III-A, 1965-66

April 12, Tuesday  
April 28-29, Thurs.-Fri.  
May 2, Monday  
May 4, Wednesday  
May 18, Monday  
May 20, Friday  
May 25, Wednesday  
June 3, Friday  
June 15, Wednesday  
June 16-17, Thurs.-Fri.  
June 17, Friday  

May 31, Tuesday  
June 21-22, Tues.-Wed.  
June 23, Thursday  
June 27, Monday  
July 4, Monday  
July 11, Monday  
July 15, Friday  
July 27, Wednesday  
August 5, Friday  
August 8-13, Mon.-Sat.  
August 13, Saturday  

August 5, Friday  
August 29-September 3  
September 5, Monday  
September 6, Tuesday  
September 8, Thursday  
September 23, Friday  
October 3, Monday  
October 7, Friday  
November 18, Friday  
November 24-25,  

TRIMESTER III-B, 1965-66

TRIMESTER I, 1966-67

Last day to apply for admission.  
Registration of cleared students by appointment.  
Classes begin, 8:00 a.m.†  
Only day to register late ($5.00 late fee) or to change classes.  
Last day to apply for degree, Trimester III-A.  
Last day to remove “X” grades.  
Last day to withdraw without penalty.‡  
Last day to drop courses without penalty.‡  
Last day of classes.  
Final examinations.  
Trimester III-A ends.

Last day to apply for admission.  
Registration.  
Classes begin, 8:00 a.m.†  
Only day to register late ($5.00 late fee) or to change classes.  
Independence Day holiday.  
Last day to apply for degree, Trimester III-B.  
Last day to withdraw without penalty.‡  
Last day to drop courses without penalty.‡  
Last day of classes.  
Final examinations.  
Trimester III-B ends.

Last day to apply for admission.  
Registration of cleared students by appointment.  
Labor Day holiday.  
Classes begin, 8:00 a.m.†  
Honors Convocation, 9:45 a.m.  
Last day to register late ($10.00 late fee) or to change classes.  
Last day to remove “X” grades.  
Last day to apply for degree, Trimester I.  
Last day to drop courses without penalty.‡  
Last day to withdraw without penalty.‡  
Thanksgiving Day holiday.  
Last day of classes.  
Final examinations.  
Trimester I ends.
TRIMESTER II, 1966-67

December 13, Tuesday
January 2-6, Mon.-Fri.
January 9, Monday
January 11, Wednesday
January 27, Friday
February 6, Monday
February 10, Friday
February 13, Monday
March 27, Monday
April 13, Thursday
April 17-22, Mon.-Sat.
April 22, Saturday
April 23, Sunday

Last day to apply for admission.
Registration of cleared students by appointment.
Classes begin, 8:00 a.m.
Last day to register late ($10.00 late fee) or to change classes.
Last day to remove "X" grades.
Last day to apply for degree, Trimester II.
Last day to drop courses without penalty.
Gasparilla Day holiday.
Last day to withdraw without penalty.
Last day of classes.
Final examinations.
Trimester II ends.
Commencement Convocation.

TRIMESTER III-A, 1966-67

April 11, Tuesday
April 27-28, Thurs.-Fri.
May 1, Monday
May 3, Wednesday
May 15, Monday
May 19, Friday
May 25, Thursday
June 2, Friday
June 14, Wednesday
June 15-16, Thurs.-Fri.
June 16, Friday

Last day to apply for admission.
Registration of cleared students by appointment.
Classes begin, 8:00 a.m.
Only day to register late ($10.00 late fee) or to change classes.
Last day to apply for degree, Trimester III-A.
Last day to remove "X" grades.
Last day to withdraw without penalty.
Last day to drop courses without penalty.
Last day of classes.
Final examinations.
Trimester III-A ends.

TRIMESTER III-B, 1966-67

May 31, Wednesday
June 20-21, Tues.-Wed.
June 22, Thursday
June 26, Monday
July 3-4, Mon.-Tues.
July 10, Monday
July 14, Friday
July 27, Thursday
August 4, Friday
August 7-12, Mon.-Sat.
August 12, Saturday

Last day to apply for admission.
Registration.
Classes begin, 8:00 a.m.
Only day to register late ($10.00 late fee) or to change classes.
Independence Day holiday.
Last day to apply for degree, Trimester III-B.
Last day to withdraw without penalty.
Last day to drop courses without penalty.
Last day of classes.
Final examinations.
Trimester III-B ends.

August 4, 1967
Last day to apply for admission, Trimester I, 1967-68.

† A late fee will be charged all persons completing registration on or after the first day of classes.

* This is the last day to remove an "X" grade (or to apply to remove a CB 100 or 200 level "X" grade) of the preceding term.

‡ Dropping courses or withdrawing from the University after this date will result in automatic failure.
GENERAL INFORMATION

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

This system of public universities now includes the University of Florida in Gainesville, Florida State University and Florida A & M University in Tallahassee, the University of South Florida, Florida Atlantic University in Boca Raton, the University of West Florida near Pensacola, and a new university near Orlando. In addition, there are 29 public junior colleges in population centers throughout the state.

More than 850 students graduated from the University of South Florida in 1965. On-campus enrollment for the fall of 1966 is expected to reach 9,000, with an additional 1,500 in off-campus programs.

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

The Campus

On a 1,734-acre campus eight air miles northeast of downtown Tampa, the University is ideally located for steady growth and development in the heart of an expanding metropolitan area having nearly a million people within a 30-mile radius. The campus is midway between U.S. Highway 41 and 301 on State Highway 582. Interstate 75, now under construction, will pass two miles to the west.

The physical plant of the University, now including 16 major academic and residence buildings, is currently valued at more than $20 million. The buildings are of similar, modern architectural design and all are completely air conditioned. New buildings costing about $10 million are now under construction. Major buildings now in use are:

- **Administration Building**, housing administrative and business offices and a number of special service units of the institution;
- **Library**, a five-story structure designed for 250,000 volumes in open stacks;
- **University Center**, with student and faculty offices, meeting rooms, recreation areas and classrooms, as well as a cafeteria, and the University Bookstore;
- **Theatre**, seating 550 persons for cultural events and also serving as a lecture and teaching auditorium;
- **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, and the Planetarium; and
GENERAL INFORMATION

Residence Halls and Activities Center, housing 1,967 students and providing central dining, recreational and service facilities in eight separate but coordinated buildings.

Major buildings scheduled for completion in 1966 are:

Business Administration Classroom Building, which will house the Dean of the College of Business Administration, faculty, classrooms, and 500-seat teaching auditorium;

College of Education Classroom Building, which will house the Dean of the College of Education, faculty, classrooms, an auditorium seating 200, and an Instructional Materials Center;

College of Engineering Classroom Building, which will house the Dean of the College of Engineering, faculty, classrooms, laboratories—including a 6,000-square-foot roof laboratory and 250-seat auditorium;

Physical Education Classroom Building, which will house the Director of the Physical Education Division, faculty, classrooms, gymnasium, activities area, and a swimming pool; and

Additional Residence Halls and a second Activities Center.

The University’s Bay Campus in St. Petersburg provides a unique opportunity for freshmen to participate in a small residential unit of the University. Located on Bayboro Harbor in St. Petersburg, the new campus initially provides facilities for a residential unit of 250 freshmen; an inter-institutional research program in oceanography; a continuing education center for Florida’s Suncoast area; and graduate courses in certain fields.

The Bay Campus has many of the characteristics of a small college, but also has the advantages of the resources of a major university. Development of the campus is expected to keep pace with the continuing expansion of the Tampa Bay area.

Internal Organization

The University is organized internally in five colleges, with supporting services designed for this basic pattern. The five colleges are: Basic Studies, in which all freshmen and sophomores enroll and from which a minimum of 36 credit hours must be earned during the first two years; Business Administration, which offers majors in such fields as economics, accounting, management, marketing, and office administration; Education, which provides teacher training in all major teaching fields; Engineering, organized around systems design, research, and operation; and Liberal Arts, which offers programs in the areas of fine arts, natural sciences, social sciences, and languages and literature.

Bachelor’s degrees are offered by all the University’s colleges, with major programs available in more than 40 different areas. Master’s degrees are offered in several areas of business, education, engineering, and liberal arts.

The University’s teaching faculty, numbering more than 350, represents all major areas of higher learning, and nearly 60 per cent hold doctoral degrees.

For administrative purposes, the University is organized into the three broad areas of academic affairs, student affairs, and administration and business affairs. The administrative officers who head these three units serve with the President in the Executive Committee, the principal policymaking and advisory body of the University. The President is responsible to the Board of Regents for internal policy and procedure of the University. In addition to the Executive Committee, 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 whose purpose it is to provide supplementary funds beyond the basic needs of the University by supporting programs not normally receiving state funds. Examples are funds for student aid, exceptional research needs, distinctive library collections, and many others. Both current gifts and bequests for the University’s use should be made through the Foundation. Membership in the Foundation is open to all persons interested in the welfare and development of the University.

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

Purposes and Goals

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

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

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

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

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

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

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

II. To create a community of scholars dedicated to teamwork in the search for truth, the exchange of ideas and the establishment of high standards of intellectual inquiry and creative activity.
The faculty has been carefully chosen for its training, competence and ability to teach. In an unusual sense it is a team. The faculty has already shown its outstanding ability to carry on creative work and significant research and to provide opportunities for able students to learn the meaning of, and assist in, such work as part of the process of education.

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

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

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

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

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

**A LOOK AT THE FUTURE**

The University of South Florida's location in a large and expanding 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 1,000 each year through 1975. Construction will continue at a rapid pace each year for several years to come. A $10 million construction program is currently underway, with an additional $7 million in new buildings on the drawing boards for 1967. New faculty are joining the University staff at a steady rate. In every respect, the University of South Florida is a vital part of the state's inevitable growth, and it is destined to become a large, multi-purpose university.
ADMISSION

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

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

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

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

When students apply for admission to any university, they are asked to have a transcript of their previous academic work sent to the registrar. When students leave an institution, they may request a transcript of work done there. College or university transcripts show courses taken, grades and credits earned. High school transcripts show rank in high school graduating class which indicates how the student's grades compare with others of his class. College or university transcripts show grade point average or ratio, which is a numerical index showing the proportion of A's, B's, C's, D's, and F's the student earned. Such records may also show the results of standard tests students took prior to being admitted to the college or university, or other tests required of all students. Such scores are most frequently expressed as percentiles indicating the percentage of all other students taking the same tests who scored below the student in question.

ADMISSION TO THE UNIVERSITY

FRESHMEN

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

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

1. Graduates of Florida high schools, who must have a favorable character recommendation from officials of their high school, must have an overall average of "C" or better in all academic subjects and must earn an acceptable score on the Florida State-Wide Twelfth Grade Tests.

2. Graduates of high schools outside Florida, who must have a favorable character recommendation from officials of their high school, must have grades placing them in the upper 40 per cent of their graduating class and must have acceptable test scores (examples: 900 or higher on the Scholastic Aptitude Test—450 or higher on the verbal portion).

3. High school graduates by Armed Forces Tests of General Education Development (G.E.D.), who must have a favorable recommendation from their employer, must have an acceptable high school record for the portion attended and must have a minimum individual score (percentile) of 50 and a minimum average of 60 on the G.E.D. test.

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

TRANSFER STUDENTS

Degree-seeking students wishing to transfer to the University must have a minimum average of "C" for all college work previously attempted and must be eligible to return to the last institution in which they were enrolled. Those with less than 60 hours of transferable college credit must meet the University's freshmen entrance requirements. Non-degree seeking transfer students who wish to change to a degree-seeking status must first meet the degree-seeking admission requirements or earn a minimum of 15 credit hours with a minimum average of 2.5 (C+).

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

The final 60 hours of work taken for the bachelor's degree must be earned in a senior institution, and a maximum of 30 hours of extension and correspondence courses and Armed Forces credit can be applied toward a degree. The transfer of correspondence course credit must be approved by the Academic Standards Committee.

Service school courses will be evaluated with reference to the recommendation of the American Council on Education when official credentials have been presented. Such recommendation, however, is not binding upon the University.

A transient student interested in enrolling for a summer session or for one term only before returning to his parent institution should write for transient application papers. No evaluation of transferred credit is prepared for transient students.

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

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

Students already graduated from accredited four-year institutions who apply for admission to work toward another undergraduate degree must meet the University's regular graduation requirements. A minimum of 30 credits must be earned in residence and the student must meet the requirements for liberal education and for major concentration as specified by his departmental adviser and dean.

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

CHANGE OF DEGREE STATUS

Non-degree seeking students who wish to change to a degree-seeking status must first meet the degree-seeking admission requirements or earn a minimum of 15 credit hours with a minimum average of 2.5 (C+).

MATURE STUDENTS

Mature persons (25 or older) may, by providing evidence that they are qualified to do the proposed work, enroll as non-degree students (in day classes or in the evening sessions) without meeting the requirements established for degree programs. They may transfer to degree programs later if their work as non-degree students indicates the likelihood of success. Work taken for credit as a non-degree student may later be counted in a degree program if it is applicable and of satisfactory grade.

EVENING SESSION STUDENTS

While serving degree-seeking and non-degree seeking students, the Evening Sessions of the University of South Florida offer only courses for full academic credit. Any student accepted as a candidate for a degree may enroll in courses offered in the evening which are appropriate to this program. The admissions requirements and achievement levels in the day courses and in the evening sessions are the same. The evening sessions are more fully explained on page 43.

SPECIAL CONSIDERATION

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

Whenever a student is admitted after special consideration, he will usually be placed on Academic Warning or Final Academic Warning; therefore, he should be familiar with the meaning of these terms which are described on page 17.

GRADUATE STUDENTS

Admission requirements for graduate students are given in the section entitled Graduate Study, page 86. Graduate applicants should also refer to descriptions of the master's degree programs for specific admission requirements.

Procedures for Applying

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

There are definite advantages in applying early. Housing priority is explained elsewhere in the catalog. Each trimester has its own application deadline, usually about 30 days prior to the first day of classes for the fall and about two weeks prior to classes for other trimesters. The application will be acknowledged and qualified students will be accepted. Upon receipt of test scores and evidence of completion of high school work, or upon the arrival of the final college transcript, final decisions will be made and the candidate notified.

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

A letter of recommendation from the employer should be secured and mailed to the Registrar if the applicant has been employed for more than six months. An applicant who has not attended a school or been employed within 12 months preceding the application should write a letter to the Registrar describing how the time was spent (as a housewife, disabled, etc.).

In an effort to assist high school and college guidance counselors, the University mails transcripts—indicating credit transferred, courses taken at the University, and grades earned—to high schools and junior colleges for their former students.

REAPPLICATION

Any student who has been enrolled at the University of South Florida during a given calendar year, upon resuming his studies, will not have to reapply.

Any student who has not been enrolled at the University of South Florida during the calendar year in which he wishes to re-enter (exception: those here Trimester I who want to continue in Trimester II which immediately follows that Trimester I) will be classified as a Former Student Returning and will need to secure a special application for students in this category from the Registrar's Office.

A student enrolled in the University at the end of Trimester II does not have to reapply in order to resume his studies the following Trimester I.

A student who has submitted application papers for a previous term but has never enrolled at the University should request papers to "update" his file. A student who has submitted application papers for a term two or more years prior to the term in which he now wishes to enroll must pay the application fee an additional time. Failure to update the application a month prior to the application date of enrollment will result in late registration and will require a late fee.
All students who withdraw while on "Final Academic Warning" must secure the approval of the Academic Standards Committee before they can register for a subsequent trimester.

**Summer Advising Conferences**

It is anticipated that new students entering the University in September will attend one of the advising conferences held each summer. The conference is designed to acquaint students with the University and with each other and to accomplish in an organized and efficient manner those steps necessary to the completion of registration. Advising conferences are also held for new students entering the University for the winter or summer trimesters.

New students' participation in the advising program is urged because it assures maximum attention to the curricular and extracurricular needs of the individual student. Some testing is included in the conference principally for the purpose of providing advisers with information about the student. Such information is necessary to realistic planning and the choice of appropriate courses.

The conference also facilitates the transition from high school to college by assisting the student toward an understanding of the objectives of and opportunities in the University community. It further assures a specified period of time for private conference with a faculty adviser with a view to increasing the student's understanding of the programs and courses available through the University.

**Orientation Testing**

After admission, all students who are working toward an academic degree will take a battery of tests, the results of which will be used in advising them throughout their academic careers. This battery consists of measures of academic aptitude, reading and writing ability and measures of some of the other skills needed by college students.

On the basis of these results some students may be advised to enroll for independent study; other students may be advised to seek remedial help concerning deficiencies these tests reveal. The tests are usually taken either in the counseling conferences for new students in the summer, or during the orientation week if not taken earlier. Students not enrolled in a degree program will be urged to take the full battery of orientation tests.

The orientation test results are made available to advisers. Students concerned about their performance on these tests may talk with their advisers about the matter.
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 30, or below 1.7 when his attempted hours are between 30 and 59, or below 2.0 when he has attempted more than 59 credit hours. Such a situation occurs generally because the student lacks the maturity, diligence, or motivation to realize the necessity for adequate scholarly effort. Whenever a student falls into this status, he will be placed on Academic Warning and a notification to this effect will be sent to him and his permanent record will be posted accordingly. 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 for a trial period.

All students who do not raise their grade point ratio to a level of good standing within the trimester 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 or campus 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 his next trimester 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 trimester 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 the Committee to return to the University after having been disqualified from further immediate attendance or for reasons pertaining to admission, registration or other academic policies and procedures.

**PROBATION—DISQUALIFICATION AND READMISSION**

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

- **Below 1.500 and his attempted hours are less than 30;**
- **Below 1.700 and his attempted hours are between 30 and 59.**

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 trimester in residence after being placed on Academic Warning will be placed on Final Academic Warning.

- **Below 2.000 and his attempted hours are more than 59.**

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 regardless of trimester hours attempted during the next trimester in residence. 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 the Academic Standards Committee for re-entry.

A student who fails to have a 2.000 cumulative Grade Point Ratio after attempting 90 trimester hours is automatically disqualified. A disqualified student must petition the Academic Standards Committee before readmission. Normally, one full trimester must pass before such a petition will be considered. *This rule overrides all others.*

Any student who is readmitted to the University following Disqualification will be placed immediately on a Final Academic Warning status.

A disqualified student seeking to gain readmission must apply to the Registrar.

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

A student's registration is subject to cancellation if he owes the University for any item other than a non-delinquent loan. Settlement of accounts can be made at the University Cashier's Office.

**LEAVES OF ABSENCE**

Any student in a warning or final warning status may be asked to take a mandatory leave of absence of one or more full trimesters before resuming his studies. At the end of the mandatory leave of absence period the student must petition the Academic Standards Committee for readmission to the University.

Any student may be urged to take a leave of absence if his teachers and advisers believe such an action will assist the student.

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

Students having questions or problems about these matters should go either to their adviser, the Registrar or the dean of the college in which they are enrolled.
ACADEMIC POLICIES AND PROCEDURES

ADDS
After a student has completed his registration on the date assigned to him, he may add courses only during the first three days of classes (hours to be announced).

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. The student must also secure definite clarification from the instructor concerning just what is expected of an audit in his class. If permission is granted, the student may register for the course but without credit. However, the student must pay the regular registration fee for that course.

CANCELLATIONS (Prior to first day of classes)
If a student, after completing his registration, 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. However, since he has not attended classes, it will be necessary for him to make application for readmission to the University for future attendance.

COURSE WAIVERS
See information under College of Basic Studies, page 47.

DROPS
For the first five weeks of any term a student may drop a course or courses without penalty (he will receive a grade of "W") and without any consultation with the instructor. Any course drop after the first five weeks of classes will result in a grade of "F."

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

Following a second withdrawal from the University there will be posted on the student's record "ineligible to return, must petition the Academic Standards Committee for readmission." Any student who already is showing, as of January 1, 1966, a withdrawal on his record will not have the rule retroactively applied. 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.

<table>
<thead>
<tr>
<th>Class</th>
<th>Minimum Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>up to 29 credit hours</td>
</tr>
<tr>
<td>Sophomore</td>
<td>30 to 59 credit hours</td>
</tr>
<tr>
<td>Junior</td>
<td>60 to 89 credit hours</td>
</tr>
<tr>
<td>Senior</td>
<td>90 or more credit hours</td>
</tr>
</tbody>
</table>

The classification of Non-Degree Student is given to those who are not enrolled in a program leading to a degree and who have accumulated fewer than 30 credit hours. Special Students who accumulate 30 or more hours are advised to enroll for a degree program.
ADMISSION TO THE UPPER LEVEL

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

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

Generally, a student enrolled in the College of Basic Studies will be eligible for admission to an upper level college when he has completed the lower division requirements of the College of Basic Studies, taken a comprehensive examination some time during his sophomore year, demonstrated the required proficiency in four areas of physical education and completed at least 60 credit hours with at least a 2.0 ratio. A student with 54 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 elsewhere in this catalog and should be verified with the college before application is made.

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

All students must complete at least the last 30 hours of their undergraduate credit on the campus (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 should fill out the Change of Major Form (in triplicate) 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.

APPLICATION FOR DEGREE

Each student who plans to complete his graduation requirements by the end of a trimester must complete the Application for Degree no later than the first day of the fifth week of that trimester. The application is to be filled in at the Registrar's Office.

Graduation Requirements

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

These general requirements specify that a student must attempt and pass at least 120 hours of credit with at least a "C" average for all University of South Florida courses attempted in order to be eligible for graduation. At least 40 of his credit 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 30 hours of their undergraduate credit on the campus after having been admitted to an upper level college to qualify for a University of South Florida baccalaureate degree.

If changes are made in major or graduation requirements during the time a student is enrolled in the University, the student has the choice of being graduated under 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 90 credits to make sure that his program plans are complete.

Specific requirements of the several colleges are listed on the following pages: College of Basic Studies, page 47; Business Administration, page 50; Education, page 54; Engineering, page 67; Liberal Arts, page 72.

GRADUATION WITH HONORS

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

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 trimesters 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, and change of citizenship should be filed promptly in the Registrar's Office.

Florida College Exchange

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

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

The Traveling Scholar Program

The University System of the State of Florida has a traveling scholar program designed to enable a graduate student to take advantage of special resources available on another campus but not available on his own campus.

PROCEDURE

A traveling scholar first must be recommended by his own graduate adviser, who will approach an appropriate faculty member at the possible host institution in regard to a visiting arrangement.

After agreement by the student's adviser and the faculty member at the host institution, graduate deans (the Dean of Academic Affairs at the University of South Florida) at both institutions will be fully informed by the adviser and have the power to approve or disapprove.

A traveling scholar will be registered at his home university and his fees will be collected and kept by that institution.

Credit for the work taken will be recorded at the home university.

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 trimester (or one semester) on the campus of the host university.

A traveling scholar accepted by the host institution will be regarded as being registered at that institution for the period during which he is a traveling scholar.

Traveling scholars are not entitled to displacement allowance, mileage or per diem payments. The home 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 home or host institution.

Intra-American Exchange Program

Through a reciprocal exchange agreement, University of South Florida students may apply for a semester's work at the University of Massachusetts in Amherst, Massachusetts. Exchange students are selected during Trimester I. Acceptable grades are transferred to the University of South Florida and counted as credit toward graduation. University of Massachusetts students enjoy the same exchange opportunity.
Student costs remain essentially the same, but students must pay transportation costs to and from the exchange institution. Further information may be obtained from the Office of the Dean, College of Education, University of South Florida.

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

Selective Service and V.A. Certifications

From time to time, in addition to regular transcripts, the student may need special "student status" certifications from the Registrar.

The Selective Service System requires the University to submit a Selective Service Enrollment Certificate to local draft boards for every full-time (12 credit hours or more) undergraduate student at the beginning of each academic year (fall trimester). (Upon receipt of this certificate the local draft board will classify the student 2-S (deferred because of activity in study). The undergraduate student will remain 2-S until he graduates if he continues to pursue a full-time course of instruction leading toward a degree.

Students desiring further information concerning Selective Service requirements should inquire at the Registrar’s Office.

The University of South Florida is approved for the education and training of veterans by the Veterans Administration. Disabled veterans covered under the Vocational Rehabilitation program, Chapter 31, may also receive training here. The War Orphans Educational Assistance Act of 1956 (Public Law 634) provides educational benefits to the children of veterans who have died as a result of a "disease or injury incurred or aggravated in the armed forces during World War I, World War II, or the Korean Conflict." Public Law 88-361 provides educational benefits to children of servicemen totally and permanently disabled from service causes. Inquiries relating to veterans education should be addressed to the Veterans Administration, Regional Office, P. O. Box 1437, St. Petersburg, Florida 33731.

Academic Advising

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

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

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

All degree-seeking students entering the University are urged to participate in a two-day orientation conference, at which time they meet with an adviser in their
proposed field of study to prepare a schedule of courses. Prior to this meeting, advisers are provided with pertinent information, such as admission data and test scores, concerning each student. During the orientation conference, or shortly after the beginning of classes, the new student is assigned to a specific adviser in accordance with his stated educational objective. The student who has not yet decided on an objective is assigned without regard to the adviser's area of specialization.

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

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

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

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

**SPECIAL ACADEMIC FEATURES**

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

**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 regular registration, they take the final examination with the class. 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 the one authorized omission. 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.

**INDEPENDENT STUDY**

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

**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 regulation 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 hours each trimester. For most students seriously involved in study this is ample. However, some students find they can, with profit, take even heavier loads. To do so they must receive permission of the dean of the college in which they are enrolled and should clearly understand the difficulties they will encounter in taking as many as 21 hours. For some students, however, an overload is the best way for them to gain maximally from their college education. It should be noted, however, that under the trimester system the carrying of overloads is more difficult than under the semester system.

Registration for more than 18 credits requires approval of the dean or division director of the student’s college. A first-trimester 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. Each trimester an honors list is prepared showing students who earned a grade point average
of 3.5 or higher for that trimester, and students who maintain this level of accomplishment are recognized each fall at an honors convocation. The Gold Key honor society recognizes outstanding students.

**COOPERATIVE EDUCATION PROGRAM**

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

The Cooperative Education Program is particularly designed for recent high school graduates rather than older, more mature students with considerable work experience. It also requires students of demonstrated academic ability. A student must have a minimum of 24 hours of academic work completed with a grade point average of 2.0 or better before being assigned to a team.

All University of South Florida cooperative programs are four years in length except in the field of engineering, which is a five-year program. Following two or more trimesters on campus the student is assigned to a team and alternates between trimesters of training (paid employment) and trimesters 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 work relevant to their educational and professional goal. Usually students are first placed on those jobs where they can learn the fundamentals. They may then advance in the type of work they do 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, the National Aeronautics and Space Administration, and the National Archives and Records Service. Seven of NASA’s centers currently have University of South Florida students in their training programs.

Students are encouraged to make application for placement in the program during their first trimester 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 work 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 trimester 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 course number of 481. They may be repeated and credit may vary from one to three hours per trimester for Cooperative Education students, the amount to be determined at the time of advising.

A special course is available for Cooperative Education students—CB 471, Cooperative Education Research Report, 1-4 credits. This course is designed specifically for Cooperative Education students in which the student pursues for a minimum of two work trimesters a research subject dealing with his training assignment and his major area of professional interest. The Cooperative Education student is assigned to a professor in his major field and will confer regularly with him on the subject, structure and content of the written research project. The findings of this project would be embodied in an intensive written report. This course may be used with designators other than CB 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 four hours in value (see Cooperative Education Handbook for exceptions), student publications, use of the Library, and privileges enjoyed by other full-time students. Transfer students are welcome to select the program and should make application during their first trimester at the University.

GRADÉS AND EXAMINATIONS

There will be a final examination for most courses offered by the University. These will be given during a regularly scheduled examination period. Final examinations may not be given at any other time except in those courses the very nature of which makes other arrangements necessary.

Courses which meet only at night will normally have the final examinations scheduled at night. Courses which meet during the daytime but which have evening sections will normally be scheduled for final examinations during the daytime. Students should therefore be prepared to make any necessary arrangements to meet their final examination schedule.
There will be a common trimester final examination for each 100 and 200 level course in the College of Basic Studies, prepared by the Office of Evaluation Services. While the nature of this final examination will vary with the nature of the particular course, final examinations will count for 40 per cent of the student’s final grade.

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 to the above grades, the following grades are given as explained below.

- S—Satisfactory
- U—Unsatisfactory
- W—Withdrawal from course without penalty
- X—Incomplete
- Y—Automatic failure

In certain courses, “S” and “U” grades are used to indicate the student’s final grade in the course. These grades do not affect the students Grade Point Ratio since no grade points are assigned to either an “S” or “U” grade. However, the student will receive trimester hours credit for the course toward his degree.

For illustration, if a student has received a grade of “S” in one three-hour course and has attempted and passed 120 trimester hours of work, his cumulative Grade Point Ratio will be based upon the 117 hours of work for which he received grade points.

If a student received a grade of “U” in the same illustration, his cumulative Grade Point Ratio would still be based upon the grade points for 117 hours of work, his attempted hours would still be 120 hours, but the passing hours would, however, be only 117 hours.

A “W” indicates withdrawal without penalty from the course. A student may drop a course and receive a grade of “W” during the no-penalty period for the first three weeks of classes in a full trimester or for the first eight days of classes in Trimester III-A or III-B. After the no-penalty period and until the last full week before final examination, a student may drop courses with or without penalty. If the student is doing passing work at the time of withdrawing from the course, he will receive a “W” grade; if he is doing failing work, he will receive an “F” grade. If a student drops from a course during the last week before final examinations or during the final examination period, he will receive an automatic “F” for that course.

An “X” grade may be used for any authorized failure to meet the requirements of a course. An “X” grade resulting from any cause other than a 100 or 200 level basic studies final must be removed within three weeks of the next trimester the student is enrolled. Permission to remove an “X” resulting from a basic studies final must be secured from the Dean of Basic Studies within the first three weeks of the next enrollment and the exam completed at the end of the trimester for which permission is granted. Failure to meet applicable conditions will change the “X” to “F”. Until removed, the “X” is computed in the grade point ratio as “F”.

A “Y” grade is used chiefly in the College of Basic Studies and is a failing grade. It is used when the instructor believes that regardless of the grade a student earns on a final examination he should fail the course. A “Y” grade insures this failure. It is viewed as final and is recorded as “F”.

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 multi-
plying 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 credit 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 trimester hours attempted.

ACADEMIC SERVICES

A number of University offices, programs, and facilities provide valuable supporting services to the academic program.

Data Processing

Centralized record keeping for the University is provided by the Division of Data Processing. Among records and materials compiled in the division are financial and accounting reports, student academic records, class rolls and assignments, library records, mailing lists, directories, statistical records, and research data.

The facilities of the division include an IBM 1410 computer and are used for research, as a teaching laboratory for business courses in data processing, and for numerical analysis and statistics in mathematics courses.

Educational Resources

The Division of Educational Resources offers the following services.

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

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

Broadcasting Services. Both radio and television are a part of the Broadcasting Services. Radio WUSF is an FM radio station operating on 89.7 mc. The station is also used as a laboratory for students interested in broadcasting. There is a closed-circuit television system into all classrooms, and WUSF-TV, Channel 16, UHF, will be on the air in late 1966.

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

The Library

It is important that a library should take into account not alone 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 is interested that students come to regard books as a way of life and that they use the Library regularly. It is the Library's aim that students should 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 Library has about 123,000 volumes, and these holdings are being increased at the rate of approximately 20,000 volumes each year. The Library also subscribes to
about 3,000 journals. It is a depository for U.S. Government publications. These re-
sources provide a beginning toward library service for the University community.

The Library collection is made available to readers by means of an open stack sys-
tem. The Library’s basic policy is to encourage users to become familiar with many kinds
of books by browsing through the stacks. There are reference librarians to assist in bibli-
ographical searches or in locating material. Specialized areas include a recreational reading
area in the first floor lobby, special collections area (including a Florida collection), a
United States Government documents collection, and an art gallery.

**Sponsored Research**

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

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

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

**University of South Florida Center for the Study
of Exceptional Children and Adults (SECA)**

The Center is the locus of a cooperative, University-wide research and development
program for the benefit of exceptional children and adults. The solutions to most human
problems can no longer be approached from the viewpoint of one discipline. This is
particularly true when planning and executing major projects of theoretical and practical
significance for the care and education of the exceptional. In recognition of this state of
affairs, an interdisciplinary program has been established to facilitate cooperation of all
groups interested in the welfare of the exceptional. The research and developmental
activities provide excellent opportunities to assist in the training of personnel from various
disciplines.

**FEES**

The following fee schedule applies to all University of South Florida students. All fees
are subject to change without prior notice. The University will make every effort to ad-
vertise any such changes if they occur.

A. Initial application fee (each application—not refundable) .......................... $10.00

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

1. **REGISTRATION FEE AND TUITION**

   **Regular Trimester: Undergraduate**
   
   Students registering for less than
   seven trimester hours (credit or
   non-credit), per trimester hour ........................................ $12.00
   Students registering for seven or
   more trimester hours (credit or
   non-credit) .................................................................. 130.00

   **One-Half Trimester: Undergraduate**
   
   Students registering for less than five
   trimester hours (credit or non-credit),
   per trimester hour ......................................................... 12.00

† Tuition is paid by non-Florida residents in addition to the registration fee. Florida residents pay
only the registration fee.
Students registering for five or more trimester hours (credit or non-credit) ........................................ 65.00 100.00

**Regular Trimester: Graduate***

Students registering for less than seven trimester hours (credit or non-credit), per trimester hour ........................................ 15.00 15.00

Students registering for seven or more trimester hours (credit or non-credit) ........................................ 150.00 200.00

**One-Half Trimester: Graduate***

Students registering for less than five trimester hours (credit or non-credit), per trimester hour ........................................ 15.00 15.00

Students registering for five or more trimester hours (credit or non-credit) ........................................ 75.00 100.00

2. **Applied Music Fees** ........................................ $ 35.00

3. **Late Registration Fee** ........................................ 10.00

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

5. **Cooperative Education Program** (for work-training trimester) ........................................ 40.00

6. **Student Deposit** (for full-time students) ........................................ 15.00

7. **Breakage Fee** (Fees may be paid for courses requiring breakage fees after registration.)

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

1. **Room and Board** (students living on campus) ........................................

<table>
<thead>
<tr>
<th>Plan A—21 meals per week</th>
<th>Plan 2—15 meals per week</th>
<th>III-A or III-B only</th>
</tr>
</thead>
<tbody>
<tr>
<td>$355.40</td>
<td>$310.00</td>
<td>$167.70</td>
</tr>
</tbody>
</table>

2. **Food Service Plan** (students living off campus)

<table>
<thead>
<tr>
<th>Plan A—21 meals per week</th>
<th>Plan 2—15 meals per week</th>
<th>Commuter’s Food Plan (five meals per week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$155.40</td>
<td>$160.00</td>
<td>$55.00</td>
</tr>
<tr>
<td>$92.70</td>
<td>$80.00</td>
<td></td>
</tr>
</tbody>
</table>

* Graduate fees will be charged all students with a classification of 5 or above.

**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 and has resided permanently in the state of Florida for at least 12 months immediately preceding registration at the University. No applicant can claim Florida residence only by virtue of the fact that he or she has attended any school, college, or university in the state for the 12-month period immediately preceding registration. The owning of property in Florida while being physically located in another state does not qualify a person to claim Florida residence.

**REFUND OF FEES**

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

1. No part of the student activity fee will be refunded if the student fails to surrender his original (current trimester) identification card;

2. Deductions from authorized refunds will be made for unpaid accounts due the University;
3. No fees will be refunded after the late registration period has ended except in the following cases:
   a. A student involuntarily called back to duty with the armed forces will be entitled to a refund in the amount of the registration fee less $30.00 for a full-time student and $3.00 per hour for a part-time student.
   b. The death of a student or an incapacitating illness of such duration and severity as to preclude successful completion of the academic program for the term for which enrolled would also permit a refund in the amount of the registration fee less $30.00 for a full-time student and $3.00 per hour for a part-time student.
   c. Cancellations would be considered a separate category where the student is considered not to be registered because of the University's actions, usually resulting from some pre-existing University regulations.

4. Refunds for a full trimester for undergraduates and graduates:
   a. A full refund will be made if withdrawal is effected before the first day on which classes begin for the trimester.
   b. A full refund less a $30.00 charge will be made for a full-time student making a complete withdrawal from the University on or before the last day of late registration period.
   c. A full refund less a $30.00 charge and the proper charges per hour for each hour continued by students changing from full-time to part-time on or before the last day of late registration period.
   d. Part-time students will receive a full refund less a charge of $3.00 for each hour dropped on or before the last day of late registration period.

5. Refunds for a half trimester for undergraduates and graduates:
   a. A full refund will be made if withdrawal is effected before the first day on which classes begin for the trimester.
   b. A full refund less a $15.00 charge will be made for a full-time student making a complete withdrawal from the University on or before the last day of late registration period.
   c. A full refund less a $15.00 charge and the proper charges per hour for each hour continued by students changing from full-time to part-time on or before the last day of late registration period.
   d. Part-time students will receive a full refund less a charge of $3.00 for each hour dropped on or before the last day of late registration period.

6. A full refund of music fees and out-of-state fees will be made if withdrawal is effected on or before the last day of late registration period.

**STUDENT DEPOSIT FEES AND CHECK CASHING SERVICE**

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

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

The University will accept personal checks for accounts due the University. Each student is urged to make his own financial arrangements through his choice of commercial banks. The University Cashier, or any of the auxiliary services, such as the Bookstore, will cash personal checks not exceeding $50.00.
STUDENT WELFARE

The University of South Florida provides for the total growth and development of its students; not only giving attention to intellectual aspects of this growth, but also providing for the physical, social, emotional, and spiritual aspects. The University, through its services and programs, desires to help students acquire a maturing sense of values, a sound intellectual competence, and an understanding of the responsibilities which accompany these.

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, 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. This 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 and freedoms of others or 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.

**Student Association**

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

Representation in the Student Association Legislature is proportional representation from the colleges.

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

**Insurance**

**TRAVEL INSURANCE**

Students may obtain accident insurance for a nominal charge at the Travel Desk in the Division of Procurement for field trips and personal travel.

**PERSONAL PROPERTY INSURANCE**

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

**Housing**

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

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

Those students who reside within a 20-mile radius of the University are generally expected to commute. All Tampa students are considered to be within the 20-mile radius.
The University expects about two-thirds of the students will live with parents, legal guardians, or (with the approval of parent or guardian) other adult relatives. Married and part-time students will be expected to live off-campus.

Other regularly enrolled students paying the registration fee for full-time attendance are expected to live in University residence halls. Under the present trimester system, this means a minimum of seven credit hours in regular session or five credit hours in III-A or III-B.

Students will be permitted to live in University approved off-campus accommodations if they are at least 21 years of age by September 1 of the fall trimester, January 1 of the spring trimester, April 1 of the summer trimester, and have completed the current housing contract.

Florida public junior college graduates will be permitted to live in University-approved off-campus accommodations when on-campus facilities are not available.

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

RESIDENCE HALLS

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

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

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

Andros Complex—consisting of nine residence halls—provides a different type of living arrangement for students. Suites are designed to accommodate eight students—two students sharing a bedroom, four students sharing a study room, and eight students sharing a bath. In addition, each living unit has its own lounge. Andros Center is also considered the living and dining room of the students residing in this complex and has most of the same facilities as in Argos Center.
The residence hall program emphasizes gracious living, attractive surroundings, opportunity for group activity, self-government, and counseling services of professional people.

**OFF-CAMPUS HOUSING**

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

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

**Food Service**

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

**Student Health Service**

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

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

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

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

**HEALTH INSURANCE**

A low-cost major medical and hospital insurance plan is available to all full-time students to supplement the above student health program. The plan provides for insured coverage of more serious medical problems which cannot be cared for on campus. Since the Health Center and the health insurance plan provide complementary services, all students are encouraged to give this insurance coverage careful consideration.

**Developmental Center**

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

The Reading Service provides diagnosis and evaluation as well as developmental exercises and techniques for improvement. In addition, a one-trimester non-credit course in developmental reading is offered. Through this program students have the opportunity to reach maximum level reading effectiveness with improved comprehension and retention.
The Speech and Hearing Service offers diagnostic and therapeutic sessions for students whose speech or hearing interferes with effective communication. The summer counseling conferences include screening in both speech and hearing.

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

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

Application for any of these services of the Developmental Center may be made by any student at any time and as often as desired. Regular registration procedures will be followed for specific courses such as Developmental Reading.

Financial Aids

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

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

Scholarship applications are accepted only once each year and must be filed no later than February 1 for scholarships which will begin with the fall trimester. National Defense Student Loan applications for the entire academic year and/or Trimester I must be filed not later than April 1. Applications for other trimesters 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 regular students to borrow up to $5,000, with a maximum of $500 each trimester. Repayments begin one year after the borrower ceases to be a full-time student, at which time the loan draws interest of 3 per cent. Payment must be made within ten years. Part of the loan may be canceled if the student teaches in an elementary or secondary school.

Florida State Education Loans permit any student who has been a resident of Florida for a minimum of three years to borrow a maximum of $130 per trimester with a maximum of $390 for the academic year. Repayments begin approximately one year after the borrower ceases to be a full-time student at which time the loan begins drawing a 4 per cent interest. Repayment of the loan must be completed within five years.

Additional long-term loans may be granted, subject to the availability of funds, from the following programs: Sertoma Memorial Loan Fund for residents of Hillsborough County (number and amount of loans vary); the James J. Love Memorial Scholarship Loan Fund, preference to Gadsden County residents (number and amount of loans vary); Pan-American University Women's Club of Tampa Scholarship Loan Fund for a Tampa high school graduate of Latin descent; Credit Women of Tampa Scholarship Loan Fund; Vallie H. Perry Chapter of United Daughters' of the Confederacy Scholarship Loan Fund for a student having descendants who served in the Confederate Army or Navy; Henry J. Edward Rosenzvaig Memorial Loan Fund with preference given to Hillsborough County students majoring in science or engineering; Memorial
Junior High School Loan Fund for students who have attended Tampa Memorial Junior High School; Ruby S. Friedberg Student Loan Fund of the B'nai B'rith Women of Tampa; and the Rotary Club Student Loan Fund of Zephyrhills, with preference to students from the Zephyrhills area.

Applications for long-term loans from hometown participating banks through the United Student Aid Loan Fund Program may be submitted at any time within the academic year and will be granted on the basis of eligibility and availability of funds. A loan of up to $500 may be granted with repayment beginning the first of the fifth month after the student graduates, with full repayment being made within 36 months. If a student drops from school, payments will begin after 30 days.

Short-term loans are available throughout the academic year to meet financial emergencies. These loans must be repaid before the end of the trimester in which the loan was granted.

Applications for scholarships and/or student loans should be made to the Director of Financial Aids, 166 Administration Building, University of South Florida, Tampa, Florida 33620.

The following scholarships, with their minimum value given in parentheses are currently available to qualified students.

Ernest Atkins Scholarship (one, $260); John Stewart Bryan Memorial Award (one, $500); Pauline Bush Scholarship (one, amount varies); Chi Omega Scholarship (one, $260); Elizabeth Cone Book Scholarship (one, amount varies); General Telephone Scholarship (two, $260 each); General Telephone All-Employee Chorus Scholarship (four, $300 each); Eleanor Gilbert Scholarship (one, $250); Graham Jones Paper Company Scholarship (two, $260 each); Knight and Wall Scholarship (one, $451.50); MacDill Officers' Wives' Club Scholarship (one or two, $500); Maas Brothers Scholarship (one, $350); Personnel Administration Association of Central Florida Scholarship (one, $520); Reader's Digest Foundation Scholarship (number and amount varies); Schlumberger Foundation Scholarship (one, $500); Ione Lister Simmons Creative Writing Scholarship (one, amount varies).

Southern Society for Paint Technology Scholarship (number and amount varies); State Teachers Scholarship (number varies, $200 per trimester; application should be made to the student's County Superintendent of Public Schools prior to October); Tampa Wholesale Liquor Company Scholarship (three, $395 each); Teachers of the Mentally Retarded Scholarship (five, $1,600 each plus tuition); University of South Florida Women's Club Scholarship (one, amount varies); University of South Florida Registration Fee Work Scholarships (approximately 120, $260 each); Winn-Dixie Stores Foundation Junior-Senior Scholarship (one to three, amount varies up to $200); Winn-Dixie Stores Foundation Scholarship (number varies, $375 each; recipient chosen by Winn-Dixie Stores Foundation, Jacksonville, Florida).

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

Students with a minimum of 24 hours of academic credit and a grade average of 2.0 or better may apply for a Cooperative Education team. Further information on the Cooperative Education Program is given on page 25.

Student employment under the Work Study Program, Title I, Part C, Economic Opportunity Act, is available for students from families meeting the income requirement for eligibility. Certification for eligibility must be received from the Office of Financial Aids.

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

Placement Services

The purpose of the Placement Office of the Division of Personnel 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 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 Placement Office exists to facilitate the achievement of this end. The Career Planning Information Center provides the student with materials on vocational guidance, career opportunities, and employers. It is maintained in the Placement Office as an adjunct to the Graduate Placement Service, the Cooperative Education Program and the Developmental Center, for the benefit of all students.

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

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

University Center

The University Center as a building provides many of the personal services and facilities essential to university life outside the classroom. Facilities include conference and activity areas, lounges, cafeteria, dining rooms, snack bar, student organization offices, photography lab, recreation rooms, ballroom, mail center, University Bookstore, Student Health Center, and various other services coordinated by the University Center Director’s Office and Information Desk. Food Services and Bookstore operations are coordinated through the Director of Auxiliary Services. Many of the Center’s facilities and services provide for personal and social needs.

The University Center functions also as a program through its committees and staff. The University Center Program Council provides a social, cultural, and recrea-
tional program to make leisure activity more meaningful. The overall program is designed to supplement educational experiences by providing opportunities for self-directed activity 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, recreation, activities, music, hospitality, talks, public relations, art and exhibits, movies, house functions, and special projects. A master calendar of student activities and other campus events is maintained at the University Center Desk and a Calendar of Activities is published periodically by the University Center.

**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.

**MUSIC AND DRAMA CLUBS**

The excellent arts program and the facilities of the Fine Arts-Humanities Building and the Theatre have attracted students into the Bay Players, Ripieno, Syrinx, University Choir, and other organizations for theatre, orchestra and band. All students are welcome to participate in these organizations. (The University Orchestra, Band and Chorus are academic units; see Music course descriptions.)

**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 a faculty adviser.

The campus newspaper, which for the first six years of the University’s life has been a special Monday edition of the *Tampa Times*, provides professional experience for those students interested in journalism. Laboratory sessions of journalism classes in newswriting, news editing, and makeup are used to produce major sections of the newspaper. Any student interested in working on the newspaper in any capacity is not only encouraged but urged to participate. About one-third of the staff each trimester is not enrolled in journalism classes.

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

A campus literary magazine, *i.e.*, is produced periodically. While the magazine is sponsored by the Literary Society, anyone at the University may submit manuscripts for consideration. This publication is devoted primarily to fiction, poetry, and literary criticism.

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

**FRATERNITIES AND SORORITIES**

There are currently eight local fraternities and five local sororities functioning on the 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 "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 CLUBS**

The University has encouraged student religious organizations to develop associations and centers. Five denominations are building 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. Centers sponsored by the Christians, Methodists, and Presbyterians will follow shortly. The United Campus Christian Fellowship has a center near the campus. A nearby center is also planned by the Roman Catholics.

Student religious clubs active on campus include the Baptist Student Union, Catholic Student Organization, Canterbury Club, Christian Life Fellowship, Christian Science Organization, Church of Christ, Jewish Student Union, Lutheran Club, and University Chapel Fellowship.

**SERVICE CLUBS**

Circle K, Collegiate Civitan (men), and Collegiate Civinettes (women) provide associations for leadership and University service experience.

**SPECIAL INTEREST CLUBS**

Students have organized and continue to organize clubs covering a broad range of special interests. Membership is usually open to anyone having an interest in the club’s activities. Clubs active at present include Athenaeum, Business Administration Club, Civil War Round Table, Distributive Education Club, Engineering College Association, Exceptional Child Club, Forensics Club, Geography Club, Gold Key Honors Society, International Student Organization, Le Cercle Francais (French Club), Marine Biology, Mathematics Honorary Society, Physical Education Majors, Physics Club, Radio Club, Reader’s Theatre Club, Russian Language Club, Senior Accounting Club, Senior Class, Student Congress on Human Relations, Student Florida Education Association, Young Americans for Freedom, Young Democrats, Young Republicans, and Broadcasting Club.

**SPORTS CLUBS**

For the sports enthusiast, whether beginner or expert, there are a variety of sports clubs functioning on the campus. Present clubs include those devoted to dancing, fencing, golf, gymnastics, judo, karate, riflery, sailing, sports cars, swimming, tennis, water skiing, and weight lifting.
Cultural Events
The University of South Florida Artist Series, now in its seventh season, has brought to the campus many of today's outstanding professional musicians. The Artist Series significantly contributes to the education of the students and the University community through the unusual opportunities it provides for hearing the best music performed.

In addition to the Artist Series, the Division of Fine Arts arranges a full schedule of concerts, exhibitions, plays, lectures, films and forums throughout the academic year. Many of these events are presented both during the day and in the evening, and most are free of charge. Programs on the Calendar of Events are also open to the general public.

Within the Division of Fine Arts there are performing groups in music and theatre arts which draw heavily on student talent; student and faculty artists have opportunities to exhibit their works.

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

The activities represent a broad selection of sports ranging from those of a highly competitive nature to those of a non-competitive type and include individual, dual, team and aquatic sports. Through participation, students, faculty and staff will increase physical fitness, augment leisure time skills and develop a wholesome attitude toward physical activity.

The Intramural Sports Program emphasizes activities that are especially suited to the Florida climate. Competition is scheduled in such individual sports as swimming, tennis, track, golf, cross country, table tennis, bowling and archery, as well as the team sports of touch football, basketball, soccer, volleyball and softball. Competition is scheduled through fraternal societies, residence halls, and independent divisions. Team and individual awards are presented.

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

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

Intercollegiate Athletics
The University of South Florida fields a team in such intercollegiate sports as: baseball, golf, soccer, swimming, tennis, track, and cross-country. An Athletic Council has been formulated to act in an advisory capacity to the Director of Physical Education, Recreational Sports and Athletics on major problems of the athletic program. It is not anticipated that such activities as football and basketball will be initiated. Schedules will be arranged with quality and reasonable competition which reflect the high standards of the University. Competition shall be on a "free lance" basis, under NCAA rules. Women's athletics will be encouraged and held to the same rules that apply to men's athletics.
ACADEMIC PROGRAMS

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

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

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

Summer Session

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

While the Summer Session may serve as a continuation of the third trimester of the academic year for regular students, these courses and programs have an added emphasis for in-service teachers and for beginning freshmen just graduated from high school.

The Evening Sessions

The Evening Sessions of the University of South Florida are designed to meet educational needs of people within commuting distance. Course offerings are created to provide community service and to meet the cultural and professional needs of persons otherwise occupied during the day but who wish to spend leisure time in organized study. For these people, the Evening Sessions provide work toward a university degree or offer selected courses for personal or professional advancement.
The admission requirements 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 earlier under Admission to the University.

Students admitted to the Evening Sessions may select courses to fit their needs without necessarily meeting prerequisites. 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.

The Office of the Director of Continuing Education is open each evening classes are in session. Other administrative offices of the University are open only during normal operating hours of the day. Students are free to consult with the Director of Continuing Education on any evening or during the day on any problems or questions that may arise.

Courses of the Evening Sessions normally meet one time per week on either Monday, Tuesday, Wednesday, or Thursday evening. A few courses meet two times per week. The courses of the 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.

The faculty of the Evening Sessions consists of faculty members who also teach courses offered during the day. They also serve as advisers for part-time students. Students will be assigned to advisers shortly after admission to the University and will continue with the assigned adviser so long as they remain students at the University and the relationship remains satisfactory. Advisers are assigned on the basis of the educational objectives of the student. Any change in advisers will be accomplished through the Director of Continuing Education.

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

Evening programs in the fields of accounting and management have been developed to allow students to earn the bachelor of arts degree without taking daytime courses. Required and elective courses are offered during the Evening Sessions in a progressive sequence.

Students seeking degrees through the Evening Sessions must meet the same degree requirements as full-time day students. These requirements are set forth under the curricula of the various colleges.
Continuing Education

OFF-CAMPUS CREDIT COURSES

Through its Off-Campus Credit Instructional Program the University of South Florida serves the in-service and continuing educational needs of its ever-expanding professional and occupational community—a community which now encompasses 16 counties (Charlotte, DeSoto, Hardee, Hernando, Highlands, Hillsborough, Lee, Manatee, Orange, Osceola, Pasco, Pinellas, Polk, Sarasota, Seminole, and Sumter). For the individual who is seeking in-service educational improvement and advancement and who lives beyond convenient commuting distance of the University, this program brings the classroom and quality education "right to his doorstep."

Both degree and non-degree seekers may participate in the University's Off-Campus Credit Program. A part of an individual's master's degree 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 off-campus courses will become a part of his "planned and approved" graduate program of studies. The Graduate Study section of this catalog gives information concerning the graduate degree programs being offered by the University and requirements for admission to graduate study and regulations governing graduate study.

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

The academic calendar for off-campus courses is essentially the same as for the University's on-campus credit program. Classes are generally scheduled once a week (although a few do meet twice a week), and 14 three-hour sessions constitute the duration of an off-campus course.

Although some off-campus credit courses are generated by the University itself, most originate through requests which are initiated by individuals or interested groups. Requests for off-campus courses in education should be submitted to the county contact person, who has been designated as such by the county superintendent of schools. The county contact in turn transmits the request to the University when it is fairly well determined that potential enrollment for the course justifies its being requested. Requests for off-campus courses in all other areas should be transmitted by individuals, groups, companies, agencies, etc. directly to the Director, Center for Continuing Education, University of South Florida.

The Off-Campus Credit Program is University-wide in scope. Through the coordination of the Center for Continuing Education, all colleges of the University participate in organizing and staffing the off-campus courses which are requested or generated.
Off-campus courses can be offered in the following areas: Basic Studies, Business Administration, Education, Engineering, and Liberal Arts (fine arts, language and literature, the natural sciences and mathematics, and the social sciences).

NON-CREDIT PROGRAMS

A variety of non-credit educational programs (conferences, workshops, seminars, etc.) of short duration 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 three weeks, and the subject matter is concentrated as needed by the group being served.

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

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

The Center also offers a number of non-credit courses designed to meet various educational needs of individuals. Emphasis is placed upon quality classes for professional advancement, personal improvement and cultural enrichment. The majority of these classes are offered in the evening; few are offered in the daytime.

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

Pre-Professional Programs

In addition to the vocational training which students can complete at the University of South Florida, programs are provided which are basic to completing a vocational preparation at another institution. The University offers curricula to prepare students for entrance directly into such professional schools as medicine, dentistry, veterinary medicine, law or theology. Whether or not a student entering one of these programs will stay four years at the University of South Florida or will transfer before the completion of four years depends on which professional school he elects to attend. Some medical schools accept outstanding students at the end of the junior year, but most require a bachelor's degree for admission. The same differences are found in law schools and other professional programs. Students who are planning to enter one of these pre-professional curricula should discuss their program with their adviser, should read carefully the bulletins of institutions to which they might transfer, and should consider the specific branch of professional education they ultimately wish to enter.

Inter-institutional combinations are possible for home economics, with students finishing their degree from Florida State University or other institutions having a home economics curriculum. Florida State also offers a degree in nursing, the first part of which can be taken at the University of South Florida. Agriculture, architecture, forestry, health services, pharmacy, library work, and social work are other vocations in which joint programs are possible.

The prospective student interested in any career requiring collegiate education may safely take at least the first part of that education at the University of South Florida without danger of losing substantial numbers of credits when he transfers to the institution in which he will complete his work.
College of BASIC STUDIES

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

Lower division courses are offered by the college in seven areas (see list under Waiver, below). Completion of six credits each in six of these areas satisfies the lower division basic studies requirement. In Natural Science and Foreign Languages the student may choose from more than one course (in the latter, a year of Latin or Ancient Greek may be substituted for a functional modern language course); only one from an area can be used to satisfy basic studies requirements. However, in the science area, the student could take both Biological Science and Physical Science—one for elective credit. Ordinarily, a student would enroll in three basic studies courses in each of his first four trimesters, completing his program with introductory courses from the other colleges. Which area to omit is to be decided by each student, in conference with his adviser. A suggested guide is to omit the area in which competence is greatest or the one most closely related to a proposed major. Students may take courses in all seven areas for credit.

Waiver

Some entering students have already achieved competence in one or more areas of the basic studies. These students may request a waiver of one or more of the basic studies requirements. Applications for waiver must be completed in the Registrar's Office during the first trimester the student is in attendance at the University. Routine approval will be granted when applicants meet the following conditions: (1) a score of 425 or higher on the Florida State-Wide Twelfth Grade Tests; (2) a grade of "C" or better in each of three or four years of relevant high school work. Requirements specific to the area in which waiver is requested are as follows:

Functional English: No waiver available.
Behavioral Science: Evidence of competence acquired elsewhere.
Natural Science: Three or more years of high school science, including biology, chemistry, and physics.

(A student passing BZ 201, BO 202 and ZO 202 with a grade of "C" or higher in each course can receive an automatic waiver of CB 105-106.)

(A student passing two 8-hour liberal arts sequences in separate Physical Science disciplines with a grade of "C" or higher in each course can receive an automatic waiver of CB 107-108.)
Functional Mathematics: Three or more years of high school mathematics, including two years of algebra and one semester each of geometry and trigonometry.

(A student passing liberal arts mathematics courses through MA 205 with a grade of “C” or higher in each course can receive an automatic waiver of CB 109-110.)

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

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

Humanities: Evidence of competence acquired elsewhere.

Lower division basic studies requirements may be satisfied by independent study or credit by examination, according to the procedures described on page 23 of this catalog. Students who have completed more than two college courses in the field of study concerned may not earn credit by examination. They may, however, take the examination and secure a waiver by scoring a “C” or higher.

Placement of Students in Language Classes

The appropriate placement of students in language classes is often a difficult matter calling for consultation with a member of the language staff. The general placement rule that one year of high school language is equivalent to one trimester of college language can be applied in most cases. Thus, if a student has had four years of high school language, he should enroll in the third year of language; three years would put him in the second trimester of second year; two years in the first trimester of second year; and one year in the second trimester of the first year. If a student’s background is inadequate, he may be allowed to drop back one trimester with the written permission of a member of the language staff. It is also permissible for a student who had had two years of foreign language in high school to enroll in an accelerated course in first year language. If a student has had two years or less of a foreign language in high school five or more years previous to enrollment in a language at the University of South Florida, he may disregard the high school language courses and register in a beginning course.

Advanced Basic Studies Major

An Advanced Basic Studies Major consists of CB 301-302, CB 303-304, CB 305-306, and CB 307-308, plus a concentration of 12 credits in an upper level program approved by the adviser. Not more than 24 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 24-credit limit.

Humanities Major

Requirements for a major in Humanities are 30 credits of upper division Humanities courses (at least 12 of these credits must be in 400-level courses, including HU 471 and 491) and six credits in a creative or performing art. Combined majors for secondary school teachers in Humanities/English and Humanities/Modern Foreign Languages are also available; for requirements, see College of Education.

Basic Physical Education

The required program in Basic Physical Education is planned to build on the prior knowledge and experience of students. Those who have already obtained the necessary knowledge and all or part of the skills required may meet these requirements by proficiency examination or evidence of adequate prior experience. For others not so prepared, appropriate courses are offered.
The four-trimester requirement in Basic Physical Education must include: (1) Functional Physical Education, (2) aquatic activity, (3) individual or dual activity, and (4) an activity elected from any area.

Functional Physical Education (PE 101) is a prerequisite to all areas except aquatics, and must be met through regular class enrollment. Students enrolled in PE 101 falling below the 25th percentile in the physical fitness test will be required to take special conditioning. Medically limited students will be assigned to an appropriate activity course or courses on the basis of their limitations.

Normally a student will register for one of the required areas during each of his first four trimesters. PE 101 may be taken either term of his first two trimesters of the freshman year, but must be taken during that year. Three of the requirements must be completed before a student can be admitted to an upper level and the fourth before he attains senior status.

The Basic Physical Education requirements will be waived for any student who has reached his 25th birthday at the time of his first enrollment at the University of South Florida. This does not prohibit such students from electing to take physical education. Prior military service is not a substitute for the requirements of physical education. Physical education proficiencies and enrollment in appropriate physical education courses will be established individually for handicapped students by a joint decision of the Developmental-Adaptives Coordinator and the Director of the Student Health Center.

For the three required areas other than PE 101, requirements may be met by whichever of the following methods are deemed most suitable to the students and staff:

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

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

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

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

The College of Business Administration places emphasis upon its students acquiring knowledge about, and a better understanding of, the challenge and opportunities of the rapidly changing environment in which students will work or operate a business.

Procedures and practices used efficiently today could become obsolete even before the student graduates. Therefore, it is more important that the student learn principles inherent in a subject he studies and to use these effectively under different circumstances than to be concerned with memorizing fixed information.

With this goal in mind, the college seeks to meet the following principles:

1. To prepare students for a succession of jobs rather than their first job or for top management.

2. To give the student a broad foundation in general and liberal education, a thorough grounding in basic business courses, some technical competence in at least one significant area of business and the ability to apply these to major practical business problems.

3. To strengthen students' powers of imaginative thinking, creative independent analysis and sensitiveness to social and ethical values.

4. To instill in each student a desire for learning that will continue after he has graduated and taken his place in the business community.

5. To convey to each student the spirit of pioneering, risk and adventure long a unique characteristic of the American business scene.

UNDERGRADUATE ADMISSION AND DEGREE REQUIREMENTS

Students will be admitted to the College of Business Administration who have fulfilled the following requirements:

1. Successful completion of at least six of the seven lower level courses in the College of Basic Studies.

2. Satisfactory completion of the four required physical education competencies.

3. Completion of 60 or more credit hours with a grade point ratio of 2.0 or higher.

4. Satisfactory completion of the foundation courses Elementary Accounting (AC 201-202) and Economic Principles (EC 201-202). Provisional admission is possible in some instances.

Transfer Students

The College of Business Administration is organized as a professional school within the University. A professional 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.
The following conditions will serve as a guide in expediting admission to the college and in preparing for a professional career in business leadership:

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. Students attending a four-year college, who wish to transfer after two years, should follow a program in general education similar to that required at the University of South Florida.

Prerequisite courses in business subjects during the first two years should be limited to such courses as are offered to freshmen and sophomores at the university of the student's choice. Normally these will consist of six hours of economic principles and six hours of accounting principles. Transfer credit will be allowed for these courses.

Any remaining electives after fulfilling (a) the general education requirements of the junior college and (b) the prerequisite business courses listed above should be taken in such areas as mathematics, the natural sciences, the social sciences, and humanities.

A maximum of nine hours of credit may be allowed for courses taken during the first two years of study which are available only as third or fourth year professional courses in the College of Business Administration at the University of South Florida. Examples of such courses would be Principles of Management, Marketing or Finance, Business Statistics, and Business Law. Any credit granted for such work may be in the form of undistributed business elective credit with no more than three hours transferred for credit in the student's major area.

Requirements for Graduation

Graduation requirements are 120 credit hours, including Basic Studies requirements, 39 credit hours; electives outside Business and Economics, 18 credit hours; Business Core of AC 201-202, EC 201-202, 301, and 331; GA 361; FI 301; MM 301; MK 301; and GA 499, 33 credit hours; courses in Business and Economics, depending on the major, 18 credit hours (transfer students must complete at least six of these hours at the University of South Florida); and business electives not in the student's major field, 12 credit hours.

Candidates for graduation must also take the Graduate Record Examination Aptitude Test.

The only exceptions to these requirements are those allowed students in the Business Teacher Education Program.

CURRICULA AND PROGRAMS

1. ACCOUNTING

Major Requirements: AC 301, 302, 421, and three of the following: AC 323, 401, 411, 423, 425, and 431. (AC 323, 401, 411, and 423 are all required to qualify for CPA examination.)

Business Electives: GA 362, 371, and two other business courses.

General Electives: These 18 hours must be taken outside the College of Business Administration. It is strongly recommended that all accounting students take SH 201.

Recommended Courses in College of Basic Studies: CB 101-102, 103-104, 109-110, 201-202, and two of the following: CB 105-106 or 107-108, 111-118, and 203-204.

2. ECONOMICS

Students may concentrate in General Economics, Labor and Industrial Relations, or International Trade.

Major Requirements: EC 311, 323, 401, and three other courses in desired concentration as follows:

General Economics—EC 405, 423, and one additional upper-level economics course.
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Labor and Industrial Relations—EC 313, 411, and one additional upper-level economics course.


Business Electives: Four courses in the College of Business Administration. International Trade majors are required to take FI 351 and three other business courses.

General Electives: These 18 hours must be taken outside the College of Business Administration.

Recommended Courses in the College of Basic Studies: CB 101-102, 103-104, and 109-110.

3. FINANCE

Major Requirements: EC 323, FI 411, 421, 451, and two additional upper-level finance courses to be selected in consultation with major adviser.

Business Electives: AC 305 and three other business courses. GA 351 and 451 are strongly recommended.

General Electives: These 18 hours must be taken outside the College of Business Administration. It is strongly recommended that all finance majors take SH 201.

Recommended Courses in College of Basic Studies: CB 101-102 and 109-110.

4. MANAGEMENT

Students may concentrate in Industrial Management or Personnel Management.

Major Requirements: MM 341 and 381, and four other courses in desired concentration as follows:

Industrial Management—MM 371, 421, 431, and 471.

Personnel Management—MM 343, 441, 445, and 489.

Business Electives: Four courses in the College of Business Administration.

General Electives: These 18 hours must be taken outside the College of Business Administration.


5. MARKETING

Major Requirements: MK 311, 315, 411, and 419, and any two of the following: MK 413, 415, 459, and 489.

Business Electives: Four courses in the College of Business Administration.

General Electives: These 18 hours must be taken outside the College of Business Administration. It is strongly recommended that all marketing students take SH 201.

Recommended Courses in College of Basic Studies: CB 101-102, 103-104, and 109-110.

6. OFFICE ADMINISTRATION AND BUSINESS TEACHER EDUCATION

Major Requirements: OA 141, 143, 251, 253, 351, 361, and 461. If waiver is granted for OA 141, 251, or 253, Office Administration students will substitute OA 353 or a business elective. If waiver is granted for OA 141, BTE students will substitute OA 353. If waiver is granted for OA 251, 253, BTE students will substitute electives in general education or liberal arts (i.e., Speech, Introduction to Teaching, etc.).

Required Business Course: BTE students must take GA 371 to comply with state certification regulations.

Business Electives: BTE students have no business electives. OA students have nine hours of such electives. The following are suggested: AC 305, MM 341, and GA 371.
General Electives: OA students have 21 hours of electives which must be taken outside the College of Business Administration. Those taking BTE have three hours of such electives and these must be in general education to comply with state certification regulations.

Professional Education: Students taking the BTE program must take the following courses to meet state certification requirements: ED 305, 307, 401, 443, 491, and 499.

Recommended Courses in College of Basic Studies: CB 101-102, 103-104, 105-106 or 107-108, 109-110, 201-202, and 203-204.

7. BUSINESS DISTRIBUTIVE EDUCATION


Business Electives: None.

General Electives: Nine hours (other than business and education courses).

Professional Education: Students must take the following courses to meet state certification requirements: ED 305, 307, 401, 445, 498, and 499.

On-the-Job Experience: Required work experience, or its equivalent, to be determined by the Distributive Education faculty.

* See College of Education section for alternative program.

GRADUATE ADMISSION AND DEGREE REQUIREMENTS

Admission and Background

Courses are offered in the College of Business Administration leading to the degree of Master of Business Administration. The college started this initial program at the graduate level in September 1965.

Students should consult the Graduate Study section of this catalog for information on the requirements for admission to graduate study. The College of Business Administration will generally follow these same standards.

It is anticipated that students applying for admission will have very diverse backgrounds. For example, the students may hold bachelor's degrees in Business Administration, Engineering, Liberal Arts, or Education. Therefore, in order to improve the probability that students will be able to accomplish advanced course work at an acceptable level of performance, 27 credit hours of undergraduate business foundation courses, or their equivalent, are considered necessary including: Accounting, 6 credits; Economics, 6 credits; Statistics, 3 credits; Law, 3 credits; Management, 3 credits; Finance, 3 credits; and Marketing, 3 credits.

The Master of Business Administration Program

The program requires that the student satisfactorily complete a total of 36 credit hours including: AC 601, EC 601, 603, 605, and 607, FI 601; MK 601; MM 601, 603, 605; and six credit hours of College of Business Administration senior level elective courses* with an overall "B" average (3.0 grade point ratio). In addition, a written and oral examination will be given near the end of the last trimester of work on which the student must give a satisfactory performance.

* These six hours are to be selected by the student in consultation with his adviser.
The College of Education places an emphasis on each student learning what is relevant for the world of today and in 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 total teacher education program, including subject matter and process.

**Admission Requirements**

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

Students are encouraged to apply for admission to a teacher education program during the trimester in which they accumulate 60 hours of credit. Associate of arts degree holders from state junior colleges and other transfer students with more than 60 semester or trimester hours of college credit should apply their first trimester in residence. A student who wishes to graduate within the normal 120 hours must apply and qualify for admission to a teacher education program by the 90-hour level.

Prospective secondary and K-12 teachers are enrolled in teacher education programs involving both the College of Education and the College of Business Administration or the College of Liberal Arts.

Admission to a teacher education program requires that—

1. The student initiate his application with the College of Education Guidance Office at the latest by the second week of the trimester in which he is eligible to be admitted, and
   (a) declare a major and make formal application to that program,
   (b) arrange to take a required battery of tests, and
   (c) schedule an interview with a designated member in the College of Education.
2. The applicant receives the approval from his program selection committee. Among the criteria to be considered by the committee are the following:
   (a) completion of a minimum of 30 hours of basic studies and an overall minimum grade point ratio of 2.0,
   (b) recommendation of the medical center, student affairs, and the speech and hearing clinic,
   (c) demonstrated proficiency in spoken and written grammar and satisfactory scores on the battery of tests and inventories,
   (d) recommendation of the faculty member who conducted the interview, and
   (e) additional criteria at the discretion of the program selection committee.
3. The applicant receives approval by the College of Education Selections Committee. Acceptance is only one phase of a continuous and cumulative selection which continues through the supervised teaching experience.

**Admission to Supervised Teaching Experience**

The required supervised teaching experience in the teacher education program consists of one full trimester of observation and supervised teaching in elementary or secondary schools. In certain specialized subject areas (i.e., Business Education, Special Education, Distributive Education) the student teaching-seminar experience may vary.

Special requirements for enrollment in the supervised teaching and seminar courses are:
1. admission to the teacher education program,
2. completion of an application for supervised teaching,
3. successful teacher aide experience,
4. an overall 2.0 grade point ratio,
5. a 2.0 grade point average in the professional education sequence,
6. completion of at least two-thirds of teaching specialization with a minimum of 2.0 grade point ratio, and
7. three letters of recommendation from faculty members, including one in the professional education area, one in the specialization area, and one from the student's adviser.

**College Requirements for Graduation**

A student to be certified by the College of Education as having completed its requirements must have earned 120 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. To complete ED 499, a score of 500 or above on the National Teachers Examination or a minimum score of 800 on the Graduate Record Examination 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 nine credits in professional courses and 12 credits in specialization courses must have been earned in residence.

**SPECIFIC REQUIREMENTS**

A minimum of 120 credit hours, including: Basic Studies requirements, 39 credit hours; Major Concentration, 27 to 52 hours; Professional Education Core of ED 305, 307, 401, and either 440 or 441-465, 12 credit hours; Senior Seminar in Education (ED 491), 3 credit hours; and Supervised Teaching (ED 499), 9 credit hours. The remaining credit hours up to the minimum of 120 will be elected by the student with the help of his adviser.
Recommendation for Florida Certification

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

NON-DEGREE STUDENTS SEEKING CERTIFICATION

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

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

All students who have a total of 90 hours or above should register with Placement Services.

UNIVERSITY OF SOUTH FLORIDA CENTER FOR THE STUDY OF EXCEPTIONAL CHILDREN AND ADULTS (SECA)

The general nature and purposes of the Center for the Study of Exceptional Children and Adults are described on page 29. The Center provides excellent opportunities to students in the College of Education or other colleges who are interested in research training experiences with exceptional children and adults. The Center administratively reports to the Dean of the College of Education.

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 (39 to 45 credits)

   Elementary teacher candidates must take CB 101-102, 103-104, 109-110, 201-202, 203-204, 401, and either 105-106 or 107-108. ED 101 is strongly recommended. If substitutions are made, they must be part of a planned program.

   Secondary and K-12 teacher candidates have the same general preparation requirements as prospective elementary teachers, except the students may take either mathematics or a foreign language, although both are strongly recommended.

2. PROFESSIONAL EDUCATION CORE (12 credits)

   Elementary and secondary teacher candidates are required to take only 12 credit hours in the professional education core. In addition, the teacher candidate is required to take the senior seminar in education and supervised teaching. It is recommended that teacher candidates consider electing other professional education courses. It is not recommended that these courses be taken in lieu of liberal arts offerings. Some of the areas in which they might profitably elect courses are: Guidance, Special Education, Tests and Measurements, Principles of Learning, and Philosophy of Education.

   The required courses in professional education, senior seminar, and supervised teaching for teacher candidates are ED 305, 307, 401, 491, and 499. Elementary education majors must also take ED 440 (methods); secondary education majors are required to take one methods course in their subject area.
3. TEACHING SPECIALIZATION PREPARATION (up to 52 credits)

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

A. Elementary Education

Students who are elementary teacher candidates for the bachelor's degree must have ED 305 (Human Development and Learning) as a prerequisite to work in this program.

No student may intern without a 2.0 grade point ratio in course work taken in the separate areas of professional education and teaching specialization.

(1) ELEMENTARY SPECIALIZATION. The major is consisted of an elementary specialization sequence and a subject concentration sequence.

The 27 hours of elementary specialization courses are offered in three areas of nine credits each. These areas are: (a) Communication Arts (reading, language, and literature—EE 409, 411, and 413), (b) Environmental Concepts (arithmetic, science, and social studies—EE 415, 417, and 419), (c) Aesthetic and Recreational Learning (art, music, and health, physical education—EE 421, 423, and 425). Students register for these courses in nine trimester units, thereby avoiding unnecessary duplication and approaching subjects both as separate entities and as interrelated disciplines.

A teaching concentration is chosen by each elementary education specialist with the assistance of an adviser. This should include a minimum of 18 credit hours in a subject taught in the elementary school. With careful planning, the student may receive dual certification in elementary education and in a kindergarten through twelve, or a secondary education field.

(2) ELEMENTARY-EARLY CHILDHOOD. Students interested in certification in early childhood education may add this area to a major in elementary education by taking a planned 18-hour program including EE 427, 429, 430, 431, and by enrolling in an internship providing teaching experience in nursery-kindergarten and elementary education upon completion of the required course work.

(3) ELEMENTARY-LIBRARY-AUDIO VISUAL. Information on course work leading to dual certification in elementary and library science-audio visual education is given in Section B-3.

B. Kindergarten through Twelfth Grade

Candidates meet certification requirements for teaching at any grade level from kindergarten through the senior year of high school.

(1) ART EDUCATION. Required courses are AR 207, 208, 307, 308, 371, 373,
411, 421, 431, 441, and 501; AE 379 and 498; FA 403, 405, and 491, and three hours of electives in Art History, for a total of 47 hours.

(2) HEALTH, PHYSICAL EDUCATION AND RECREATION. All professional major students are expected to participate in intramural sports, sports clubs, and the physical education professional majors club. Professional major students must meet the same four-trimester requirement in basic physical education as other regular students, namely: functional physical education (PE 101), aquatic sports (PE 130 or 132 or 134 or 136), individual and dual sports (selection from PE 150-179), and an activity elected from any area (PE 102-179).

Proficiency examination or evidence of adequate prior experience may meet the requirements above if approved by the Division of Physical Education.

Professional major men students must take the following non-credit basic physical education courses: PE 101, 119, 150, 152, 156, 160, 168, 169, either 132, 134 or 136, and 170 (student may select either tumbling or gymnastics according to his preparation background need).

Professional major women students must take the following non-credit basic physical education courses: PE 101, 119, 120, 150, 152, 156, 160, 168, 169, either 132, 134 or 136, and 170 (student may select either tumbling or gymnastics according to her preparation background need).

Professional major students, with the exception of the four-trimester requirement, may waive PE courses upon recommendation of the chairman of the professional program. Professional physical education requirements are as follows for all majors (men and women):

EE 325; ZO 271; and EP 203, 217, 301, 321, 353, 354, 361, 430, 451, 455 for a total of 31 hours.

In addition, men students must take EP 322, 331, 332 and 357, for a total of 10 hours. Women students must take EP 333, 334, 342, and 359, for a total of 10 hours.

Elective courses are EP 341 and 342 for men and EP 341 for women. EP 460 is an elective course for teachers in the field who must have approval of the county school superintendent and the county health department.

(3) LIBRARY AND AUDIO-VISUAL EDUCATION (LEARNING RESOURCES). This program is designed for undergraduate teacher candidates earning a major in another field. The required courses meet Rank III certification in library and audio-visual service. The courses are: EE 413, LE 411, 412, 419, 513, 515, 517, and 523.

(4) SPECIAL EDUCATION.

Mental Retardation (Intellectual Disabilities). With the assistance of an adviser, students elect 21 credit hours from the major area—SE 321, 322, 423 or 424, 598, and 371, ED 303 or PC 311, and an appropriate elective selected jointly by the student and his adviser. Half of ED 499, the Teaching Internship, involves supervised teaching in the Special Class setting; the other half, in the elementary classroom. Students register for three credit hours of SE 598 concurrently with ED 499 and 498. In addition, 24 hours are required in the area of Special Preparation for Elementary Teachers—Aesthetic and Recreational Learnings (nine hours), Communication Arts (six hours), and Environmental Concepts and Understandings (nine hours).

Speech Pathology (Speech, Language, and Hearing Impairments). Students in Speech Pathology will take a five-year program terminating in a master's degree in Special Education: Speech Pathology. The following courses, or their equivalents, make up this program: SE 321, 322, 371, 571, 572, 573, 574, 611, 671, 672, 673, 674, 675; SH 201, 411, 503, 511; ED 305, 307, 401, 498, 499; EE 413; SS 301; PC 335; PC 431 or SE 631, SE 699 and/or SE 598, the basic studies courses listed for the elementary education major and the process core for the MA in education.

ED 499 (internship) involves supervised clinical work in school settings. Students register for three credit hours of SE 598 concurrently with ED 499 and 498. In addition, a total of six hours of SE 598, Field Work in Special Education: Practicum in
Speech Pathology, is required to be taken in trimesters other than the intern trimester. Completion of requirements for the master’s degree in Special Education: Speech Pathology is required prior to certification for employment in the schools.

Electives must include nine or more hours outside of fields dealing directly with communication disorders.

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

Instrumental music students must take MU 213-214, 313-314, 307-308, three of the following outside the family of the student’s major instrument: MU 215, 245, 255, 265; 12 credits of study on the major instrument; ME 431, 432, 433; FA 401-405, 491; and ensemble, for a total of 49 credits.

Vocal music students must take MU 213-214, 225, 313-314, 335, 535, 307-308; FA 401-405, 491; ME 435, 437, 439; and ensemble, for a total of 49 credits.

Before enrolling in ED 499, Internship, each vocal and instrumental music student is required to pass the piano proficiency examination defined by the music faculty. Excluding only the internship trimester, music education candidates are required to participate in ensemble.

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 any one of seven areas—

(1) BUSINESS EDUCATION. To qualify to teach business education, students must take the Business Core of 33 credit hours as listed in the graduation requirements of the College of Business Administration. They must also take OA 141, 143, 251, 253, 351, 361, and 461, and GA 371, for a total of 21 hours. OA 251 and 253 may be replaced with special permission by electives in general education or liberal arts (e.g., Speech, Introduction to Teaching).

(2) DISTRIBUTIVE EDUCATION. To qualify to teach in the area of Distributive Education, students must take 33 credit hours of business courses. They must also take MK 411, DE 406 and 407, plus six credit hours in a prescribed special interest area and six hours of general electives. In addition, they must fulfill the state requirement of two years on-the-job experience or completion of 2,100 hours of acceptable training. (Acceptability will be determined by the faculty staffing the existing program at the University of South Florida.)


*English*—Students must take any three of EN 201, 203, 305 and 306. In addition, they take EN 307, 331, 411 or 519, 517; one course in writing above the freshman level; one English elective at the 400 level, and one English elective at the 500 level; SH 201 and 321; EN 341 or 343, 347; and TA 303.

*English-Humanities*—Students must complete 24 hours in prescribed English/Speech courses beyond Functional English to receive certification. In addition, they will complete 21 hours in Humanities beyond CB 203-204 and at least three hours in studio work in Fine Arts, with an additional three hours strongly recommended. Thus, students will complete a required total of 48 hours for the joint major. The specific program is listed below.

Required: EN 203, 306, 307, 321, 331, 411, and 517; SH 201; HU 321-322 or 323-324, 315-316 or 317-318, 311-312 or 313-314 or 435-436; and one additional 400-level Humanities course. One course in studio work in art, music or theatre arts. Recommended electives: a second course in studio work and SH 321.
English-Journalism—Students must take any three of EN 201, 203, 305, and 306. In addition, they take EN 307, 331, 335 or 336, 341, 343 or 349, 347, 411 or 519, 517; ED 463; SH 201 and 321. In addition to ED 463, these majors must also take ED 447, Methods of Teaching English.

English-Library Audio-Visual—Students must take any three of EN 201, 203, 305, and 306. In addition, they take EN 307, 321, 411 or 519, 517; SH 201; EE 413; LE 411, 412, 419, 513, 515, 517, 523.

English-Speech—Students must take any three of EN 201, 203, 305, and 306. In addition, they take EN 307, 321, 411 or 519, 517; TA 303; SH 201, 203, 321, 361 or 365, 491; and two electives in Speech.

English-Latin—Students must complete a 45-hour program, consisting of any three of EN 201, 203, 305 and 306; EN 307, 321, 411, 417; SH 201; LA 311, 313, 411-412, 413-414, and 517. (LA 221-222 may not now be counted in the major.) Recommended electives: SH 321; LI 301 and 501. In order to be certified to teach both English and Latin, ED 447 and 465 must be taken.

English-Modern Foreign Language—Students must take 24 hours in English and speech and 24 hours in one foreign language above the basic courses, for a total of 48 hours. The required courses in English are any three of EN 201, 203, 305, and 306. In addition, EN 307, 321, 411 or 519, 517; SH 201 and 321 are required. The requirements in language (Spanish, French, Russian, Italian or German, whichever is chosen) are the six hours of survey literature in the language, 12 hours of advanced courses in the language as selected by a language adviser, and three hours of advanced composition and three hours of advanced conversation in the language. Native speakers should substitute a literature course in the language for the course in advanced conversation and pronunciation. Recommended electives in this curriculum are: EN 411 or 519; LI 301 and 501; GN 513; RN 515; and SH 203. In order to be certified to teach both English and a foreign language, the student must take both ED 447 and 449.

(4) FOREIGN LANGUAGES.

Two Languages—Students must complete the basic studies language requirements or their equivalent. In the major language (French, German, Italian, Russian or Spanish), the student must earn an additional 24 credit hours, and in the minor language, the student must earn an additional 18 credit hours. The major language requirements are courses numbered 301, 303, 305, 306, and six hours of advanced work in a course selected by the language adviser. Native speakers must substitute an additional literature course for 303. Recommended electives include EN 335, 336.
and 337; HU 323, 324, and courses in history, literature, and social sciences applicable to the language concerned.

**Foreign Language-Humanities**—The student will complete 24 hours in prescribed courses in one foreign language beyond Functional Foreign Language to receive certification. In addition, he will complete 21 hours in Humanities beyond CB 203-204 and at least three hours in studio work in Fine Arts, with an additional three hours strongly recommended. Thus, the student will complete a required total of 48 hours for the joint major. The specific program is listed below.

The requirements in language (French, German, Italian, Russian or Spanish, whichever is chosen) are the six hours of survey literature, 12 hours of advanced courses in the language as selected by a language adviser and three hours of advanced composition and three hours of advanced conversation. Native speakers must substitute a foreign language literature course for the course in advanced conversation and pronunciation. Eighteen of the 21 hours required in Humanities must be chosen from the following courses: HU 311-312, 313-314, 315-316, 317-318, 321-322, 323-324, and 415. The three remaining hours must be earned in HU 491. It is recommended that the student of this program do research in HU 491 on a problem related to his language study. In addition, one trimester of studio work is required in one of the following disciplines: art, music, theatre arts. Completion of a second trimester of studio work in the same discipline is strongly recommended.

**Latin-Modern Language**—Students who have had the first year of college Latin or two years of high school Latin must complete 27 credit hours in Latin and 18 in the modern language of their choice. The Latin requirements are LA 221, 222, 311, 313, 411-412, 413-414, and 517; LI 301 and 501. The modern language requirements are courses numbered 301, 303, 305, 306, and six hours of work in advanced courses selected by an adviser in the language. In order to be certified to teach both Latin and a modern language, the student must take both ED 465 and 499.

(5) **MATHEMATICS OR SCIENCE.** Students desiring to teach mathematics or science at the secondary level must meet the minimum requirements of the divisional major. Major requirements in the Division of Natural Sciences are a minimum of 24 credit hours in the discipline of major concentration and a minimum of 16 credit hours in the division outside that discipline. These latter 16 hours must be approved by the student’s adviser and must include a minimum of three credit hours at the 300 level or above. (Total program: 40 hours.) Concentrations are possible in biology, chemistry, mathematics or physics. A major in biology, chemistry, mathematics or physics will be accepted in lieu of the divisional major. MA 423 is required of all prospective mathematics teachers. ED 425 is recommended for all prospective physical science teachers, and ED 427 is recommended for prospective biology teachers.

(6) **SOCIAL SCIENCE.** Prospective social studies teachers must meet the minimum requirements of the social science divisional major outlined below. The requirements for a major in a single discipline such as history or geography can be met through careful planning of electives. The social science divisional major consists of 46 hours which must include HI 111-112, 121-122; PS 201 and 203; EC 201 and 202; GE 201 and 301; SO 261 or 331 or 341 or 541 or 543 or PC 331; SS 361; and at least six hours of electives in upper level courses in the Division of Social Science.

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

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**Master of Arts Degree Program for Teachers**

Effective teaching in the modern world requires a level of competency which normally cannot be developed in the brief span of an undergraduate academic program. To assist teachers to meet the increasing demands being placed upon them, the University
of South Florida is expanding its graduate program for teachers according to a carefully designed plan. Master of Arts programs are now offered in Elementary Education, in most secondary and K-12 teaching fields, and for junior college teachers.

Qualified persons may earn Master of Arts degrees in the following fields:

**Elementary Education** (with emphasis on Curriculum, Supervision, or Reading)

**Secondary Education**
- Distributive Education
- English Education
- Mathematics Education
- Science Education (with specialization in Biology, Chemistry, or Physics)
- Social Science Education

**K-12 Certification Areas**
- Art Education
- Guidance
- Library and Audio-Visual
- Music Education
- Special Education (with specialization in Mental Retardation or Speech Pathology)

**Junior College**
- Biology
- Chemistry
- Mathematics
- Physics

There are tentative plans to initiate additional secondary and K-12 degree sequences in the summer of 1967, including Administration and Supervision, Business Education, Foreign Language Education (Spanish and French), Humanities Education, Speech Education, and Physical Education. Programs for junior college teachers in fields other than the sciences and mathematics will begin as the other instructional divisions of the University offer master's degree work. Those interested in any of these projected programs should contact the Coordinator of Graduate Study, College of Education, for further information.

**PROGRAM DESCRIPTION**

All Master of Arts degree programs for teachers consist of 36 credit hours, at least 18 of which must be at the 600 level. Most specialization areas include the option of a thesis of three to six credit hours.

During the last term of enrollment, prior to completion of degree requirements, the candidate must perform satisfactorily on a comprehensive examination in the process core and specialization areas.

**ELEMENTARY EDUCATION**

This program is a 36-credit hour sequence requiring full certification as an elementary teacher for admission. There are four components of the program:

1. **Process Core** (3-12 hours)
   All students will take ED 601, Foundations of Educational Research, prior to admission to candidacy. Competencies indicated by undergraduate background and qualification tests after admission will determine waiver of or enrollment in:
   - (a) ED 605, Foundations of Measurement
   - (b) ED 611, Psychological Foundations of Education; or ED 613, Principles of Learning
   - (c) ED 621, Socio-Economic Foundations of Education; or ED 623, History of Education; or ED 625, Philosophy of Education
2. **EE 603, Seminar in Curriculum Research** (3 hours)

3. **Liberal Studies** (0-6 hours)

   For the purpose of broadening and enriching the total education experience of the teacher, selected courses may be taken outside the process core and the specialization area.

4. **Specialization** (18 hours minimum)

   All students pursuing the master's degree in elementary education are required to present credit in the following courses: EE 603, 609, and 613. ED 601 should be completed in the first nine hours of graduate work taken by the degree-seeking student.

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

   (b) Reading Emphasis: EE 631, 632, and 633 are required. Possible electives include EE 413, 611, and 634.

   (c) Supervision Emphasis: ED 661, 671, and EE 641 are required.

**SECONDARY AND K-12 PROGRAM—PLAN I**

(for the teacher fully certified in an appropriate field)

This program consists of a 36-credit hour sequence with three components:

1. **Process Core** (3-12 hours)

   All students will take ED 601, Foundations of Educational Research, prior to admission to candidacy. Competencies indicated by undergraduate background and qualification tests after admission will determine waiver of or enrollment in:

   (a) ED 605, Foundations of Measurement

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

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

2. **Current Trends Course in Teaching Specialization** (3 hours)

3. **Specialization** (18 hours minimum, may be as much as 30 hours)

   **A. SECONDARY-FIELDS**

   (1) **DISTRIBUTIVE EDUCATION**

      (a) Appropriate College of Business Administration courses in Accounting, Economics, Finance, Management, Marketing, and Office Administration. (15 hours maximum)

      (b) Distributive Education—minimum of six hours from DE 506, 507, 607, 621, 631, and 651.

      (c) DE 661, Seminar in Distributive Education Research

      (d) Selected courses in a related area such as Guidance or Special Education (3-9 hours)

   A teaching certificate in an appropriate vocational education area is required for admission to candidacy. Since certain courses needed for such certification are not offered at the undergraduate level, limited certification credit may be applied to the Master of Arts degree requirements. This provision applies only to courses in the specialization area.

   (2) **ENGLISH**

      EN 515 and 531 if equivalent courses were not taken at the undergraduate level; EN 623, six to 12 credit hours from EN 601, 603, 605, and 607, three to nine credit
hours from EN 615, 659, 667, and 695. The English education program does not offer a thesis option.

(3) MATHEMATICS

Before admission to the program, the student must demonstrate to the chairman of the Mathematics Department that he has the competence in mathematics to undertake the program.

A maximum of six credit hours may be taken from MA 405, 406, 409, and 421. At least six credit hours must be selected from MA 615-616, 625-626, or 633-634. Any 500-level MA courses and any other 600-level MA courses may be included in the planned program.

(4) SCIENCE

Biology—Before being admitted to the degree program, the student must have had the equivalent of the following undergraduate courses: BZ 201, BO 202, ZO 202, BZ 331, eight additional credit hours in biology, and CH 211, 212, 303, and 321. A minimum of 18 credit hours will be taken from the following: ZO 313 or 516, BO 311, BO 421 or ZO 421, ZO 311 or 312, BZ 415 or 351, and BZ 445 or 565. CH 551 may be substituted for any of these areas.

Chemistry—Eligibility for the Master of Arts degree in Chemistry Education requires passing competence examinations given by the chemistry staff in inorganic, organic, analytical, and physical chemistry.

Specialization in chemistry shall consist of at least 18 credit hours selected from CH 301, 303, 305, 321, 331-332, 441, 442, 443, 511, 521, and 551. Appropriate 500 and 600-level courses may be substituted for any of the preceding.

Physics—Before admission to the program, the student must satisfy the chairman of the Physics Department that he has the competence in physics to undertake the proposed program. He will take 18 or more credits approved by his adviser from the following courses, not more than nine credits of which may be from courses numbered below 500. Students who can satisfy the chairman by transcript or examination that they have had 28 or more credits from the courses listed below may take a minimum of 12 credits in physics and devote the remaining six or more to other fields.

PH 307, 309, 341, 342, 405, 407, 431, 441, 442, 443, 481, 483, 501, 521, 523, 537, and 551. Any 600-level courses in physics may be substituted for any course above.

(5) SOCIAL SCIENCE

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

B. K-12 CERTIFICATION AREAS

(1) ART EDUCATION

(a) Art Education: a minimum of six credit hours from AE 680, 681, and 682.

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

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

(2) GUIDANCE

The Guidance program requires three to nine credits from the Process Core. (Because the guidance program includes a more specialized treatment of psychological foundations and measurement than the process core courses are designed to give, these two courses are not included in the minimum program.)

Specialization in guidance shall include a minimum of 27 credits, including ED 613, PC 493, GU 581, 603, 607, 611, 619, 623, 629, and 633. Additional courses may be elected from guidance and/or related fields.

(3) LIBRARY AND AUDIO-VISUAL

In consultation with an adviser, a program will be planned which may include a minimum of 30 hours of undergraduate and graduate credit in library and audio-
visual service in order to meet Rank II state certification requirements. The individual who has no background in the field normally will need to take one or more prerequisite courses which will not apply to the 36 hour MA degree program. With the consent of the adviser at the time of registration, graduate students may petition for graduate credit for LE 411 and 412. Required courses are: LE 411, 412, 419, 513, 515, 517, 601, and 611. Prospective audio-visual specialists will also take: LE 607, 621, and 623. Electives will be chosen from LE 523, 603, 605, 607, 609, and 623.

(4) Music Education

Programs in both instrumental and vocal music are offered. At least 18 hours are taken in one of these areas. Each candidate must meet the undergraduate piano proficiency before the trimester in which he expects to graduate. Participation in ensembles is required for at least two trimesters.

Three plans are available to the candidate: 30 hours plus thesis, 33 hours plus recital, or 36 hours without thesis or recital.

Vocal Majors: Five to nine credits in music education, including ME 601 and 635; three to six credits in music literature, including MU 603; at least three credits in music theory from among the following: MU 607, 609, and 611; 615; and at least four credits in applied music.

Instrumental Majors: Five to nine credits in music education, including ME 601 and 633; three to six credits in music literature, including MU 601; at least three credits in music theory from among the following: MU 607, 608, and 609; 617; and at least four credits in applied music.

(5) Special Education: Mental Retardation

Students majoring in Mental Retardation select a minimum of 18 hours from Special Education courses with an emphasis in Mental Retardation: SE 598, 611, 612, 613, 620, 621, 622, 631, 641, 699; GU 623, DE 506 and 507. SE 620 and 621 are required of all students majoring in Mental Retardation.

(6) Special Education: Speech Pathology

A five-year program terminating in an M.A. in Special Education: Speech Pathology is available to undergraduate students. It is described on page 58. Students who already have a baccalaureate degree in 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: SE 631 or PC 431; SE 611, 671, 672, 673, 674, 675, 699 or 598, and the Process Core for the M.A. in education. In addition, three to six hours must be taken in SE 598, Field Work in Special Education: Clinical Practicum in Speech Pathology.

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

SECONDARY AND K-12 PROGRAM—PLAN II

(for the liberal arts graduate seeking initial certification)

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

The components of the program are:

1. Process Core (15 hours)
   ED 502, Curriculum and Instruction: Secondary
   ED 601, Foundations of Educational Research
ED 605, Foundations of Measurement
ED 611, Psychological Foundations of Education
ED 621, Socio-Economic Foundations of Education

Any process core course, except ED 601, may be waived by examination if the student has had an appropriate undergraduate course. ED 601 must be taken prior to admission to candidacy for the degree.

2. Current Trends Course in Teaching Specialization (3 hours)

3. Specialization (minimum of 18 hours)

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

4. Internship (6-12 hours)

The internship normally will consist of the regular full trimester internship and seminar block, ED 498 and 499, for 12 hours credit. In the case of an in-service teacher or the student who is placed in a full-time paid internship, enrollment will be in ED 691 for six hours credit. Both types of internship involve planned observation and supervision by a member of the University faculty and a secondary school staff member.

JUNIOR COLLEGE PROGRAM

This program is designed to raise the student's level of competence in his chosen discipline of specialization and to enhance his ability to teach in a junior college setting. A variety of majors will be initiated as the different academic areas in the University begin graduate programs. Effective January 1966, major sequences are available in biology, chemistry, physics, or mathematics.

The 36-credit hour program consists of:

1. Specialization (24 hours)

Typically, the student's program will include a minimum of 24 hours of graduate work in a discipline. The specialization sequence to be completed will be worked out in consultation with a designated departmental 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 demonstrate through proficiency tests their readiness to pursue the program as outlined or additional course work 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 (6-12 hours)

(a) Courses in Higher Education (6 hours)

ED 651, The Junior College in American Higher Education
ED 653, Seminar in College Teaching

(b) Internship (0-6 hours)

Those students who have not met the internship requirement for certification (six hours credit in internship or two years of teaching experience) must complete ED 691, Internship. Typically, the internship will consist of full-time supervised teaching for one trimester or part-time teaching for two trimesters. At least one-half of the internship must be in a junior college. In some cases students may be placed in salaried internship positions.

Those students who have met the internship requirement prior to admission to the program may take an additional six hours in specialization, in a related area, or in approved electives. This does not preclude the possibility of an internship for 3-6 credit hours if the student and the adviser deem it to be desirable.
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. It is a program which is advanced in concept and closely parallels those recommendations recently released by the American Society for Engineering Education in its study on the ten-year goals of engineering education.

Program Information

Those who are concerned with the education of this country's engineers are currently in the process of critical self-evaluation in an attempt to develop academic programs which will meet the broad spectrum of demands to be placed on tomorrow's engineers. 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, or 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 and many have assumed top managerial responsibilities in almost all fields of endeavor.

Because of the broad range of today's engineering activity and the increase in scientific knowledge with its many inter-relationships, it is becoming 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, in planning its program, has considered engineering effort in three board groupings of activity—design, research, and the operation of complex technological systems. It has become obvious that it requires longer than four years to provide an education for engineers who will participate in the advanced design and research activities of the engineering profession; thus, the professional program has been planned to provide flexibility within a ten-trimester (five-year) experience leading to a Master of Science in Engineering. It is also recognized that some prospective graduates will not wish to pursue a professional program but will desire to complete their technical education at the baccalaureate level. For this purpose a Bachelor of Science in Engineering is offered which will provide the student a broad education with sufficient technical background to effectively contribute in the many phases of engineering not requiring the depth of knowledge required for advanced design and research.

Both the professional and baccalaureate 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 material, each student will complete a program of specialization that has been designed in consultation with him and approved by his upper level adviser. Students wishing to pursue course work commonly associated with such traditional degree programs as electrical engineering, civil engineering, industrial engineering, mechanical engineering, and so forth, can do so within the framework of the program. However, the emphasis on flexibility at the upper levels of the program permits the student to explore his in-
dividual interests with professional assistance. For the student following the professional program, a design or research project during his senior and advanced year will enable the student to focus his attention on an engineering problem of major interest to him.

As specialization in the engineering program is individual in character, it is *most important* that students who are admitted to the upper level and who have completed a substantial portion of their freshman and sophomore course material select and work closely with their upper level adviser.

The professional program leading to a Master's degree is an integrated program of 164 trimester hours and the baccalaureate degree is a program of 134 trimester hours; both programs include the common course work core of 104 trimester hours.

**General Requirements**

The College of Engineering is organized as a professional college within the University. Students will normally be admitted to the college upon successful completion of two years of college level work, and following the completion of their third year (junior level) requirements will elect, with the advice and approval of an engineering faculty committee, to pursue either a professional program in engineering leading to the master's degree or to terminate their programs with a baccalaureate degree. Students entering the University as freshmen who plan to pursue either engineering program should come well prepared from high school in order to complete their work in a minimum time.

The high school student anticipating a career in engineering should elect the strongest academic program that is available while in high school. Four years each of English, mathematics and science, as well as full programs in the social sciences and humanities, are most important to success in any engineering college. A foreign language, while not a necessity, provides a desirable background for students, many of whom will continue for advanced study.

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

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

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

The supervision of the academic programs for the College is the function of five organizational units, each having a chairman responsible for the activities of the unit. The student and his adviser become members of one of these units and will rely upon the chairman of the unit for assistance and direction in the development of the student’s program.
Pre-engineering is the unit which will assist the student during the period prior to his admission to upper level engineering. This same unit may also assist students who are admitted to the College but who lack lower level prerequisite course work, as in the case of a student holding a degree but seeking a second degree in engineering.

The four upper level units are responsible for the students, advisers and courses in their respective areas of specialization. These units are:

1. Electrical and Electronic Systems
2. Energy Conversion Systems
3. Structures, Materials and Fluid Systems
4. Industrial Systems

**Upper Level Admission Requirements**

Students may be admitted to the College of Engineering upon completion of a minimum of 60 credit hours of college level course work with an average of 2.0 on a 4.0 system ("C" average). All admissions are subject to the regulations of the University and the approval of the academic committee of the college. It is expected that students seeking upper level college admission will have completed their basic studies core requirements (general education requirements for transfer students) and will have made substantial progress in fulfilling their lower division mathematics, science and pre-engineering course work requirements in order to complete their professional program or baccalaureate in minimum time.

**Engineering Core and Specialization**

Both the professional and undergraduate 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 professional master's degree and the baccalaureate program are as follows:

1. **ENGINEERING CORE (104 credit hours minimum)**

   **BASIC STUDIES CORE REQUIREMENTS** (24 credit hours minimum)

   Prospective engineering majors must take CB 101-102, 201-202, 203-204, and either 103-104 or two trimesters of a foreign language. Freshmen and sophomores will normally fulfill the additional basic studies requirements in Physical Science and Functional Mathematics by completing the mathematics and science core course work required in the engineering program with a grade of "C" or higher in each. Those not meeting these conditions will be expected to complete CB 107-108 and 109-110 either by examination or by enrolling in those courses.

   **MATHEMATICS AND SCIENCE CORE REQUIREMENTS** (34 credit hours minimum)

   The student must take MA 203, 204; CH 211, 212; PH 221, 222, 223, 224, 323; and MA 205, MA 301 or approved electives in advanced mathematics or engineering analysis.

   **ENGINEERING CORE REQUIREMENTS** (37 credit hours minimum)

HUMANITIES OR SOCIAL SCIENCE CORE REQUIREMENTS (9 credit hours minimum)

The student must take six credit hours of approved electives at the 200 level or above from these areas, and he must also take the Senior Seminar (CB 401) required of all degree candidates.

2. PROFESSIONAL PROGRAM

This program consists of a minimum of 104 trimester hours of core course material plus 60 trimester hours of specialization including a maximum of 12 hours of design project or research. 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.

3. BACCALAUREATE PROGRAM

The program consists of a minimum of 104 trimester hours of core course material plus 30 trimester 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.

4. ADVANCED TRANSFER STUDENTS

Students who have been awarded baccalaureate degrees from other institutions in engineering, mathematics, or the physical sciences will, upon the approval of the academic committee of the College, be eligible for direct admission into the professional master’s degree program of the College. The planning of their programs and requirements for degree completion will be a matter for individual consideration by the advisory committee of the College.

5. NON-THESIS MASTER'S DEGREE PROGRAM

The College of Engineering in cooperation with the College of Engineering of the University of Florida offers a non-thesis post baccalaureate program in the Tampa Bay area leading to the degree Master of Engineering (Electrical) and Master of Engineering (Administration). This program is primarily for the benefit of industrially employed engineers and requires the completion of 30 trimester hours of approved course work, as well as a comprehensive examination. Through a joint arrangement, the degree is available either from the University of South Florida or from the University of Florida, depending upon which institution administers the comprehensive examination. Further information is available by contacting the Office of the Dean, College of Engineering, University of South Florida.

Other Requirements

HUMANITIES AND SOCIAL SCIENCE REQUIREMENTS

While the engineering 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 core engineering program at the University is designed to provide a minimum of nine credit hours of advanced study in the humanities and social sciences during the engineering student’s junior and senior years. Students are encouraged to complete one course in this subject material area each trimester of his upper level program.
ENGLISH REQUIREMENT

Students who have been admitted to the College of Engineering are expected to take an examination during their first trimester of residency 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 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 professional work with a minimum average of 3.0 or "B". The awarding of a baccalaureate degree requires a minimum average of 2.0 or "C" for all work attempted while registered in the College. Students attempting but not completing their professional master's requirements may elect to request the awarding of the bachelor degree.
College of
LIBERAL ARTS

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

More specifically, the College seeks:

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

Admission to the College

Students may enter the College of Liberal Arts after two years (at least 54 credits) in the College of Basic Studies or by transfer from another institution. The general education and physical education requirements should have been completed and the student should have at least a “C” average on all previous college work. However, students may be admitted provisionally upon completion of five of the six basic studies courses (or equivalents) and three of the four trimesters of physical education. Occasional students admitted without this “C” average will automatically be on warning status.

Upon admission (by the appropriate divisional office), the student is expected to declare his major and will be counseled in his selection of courses by an adviser from that 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. He will be enrolled in one of the divisions of the College, and the director of that division will generally supervise his progress.

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 19 of this catalog but are briefly summarized here:
1. 120 credits with at least a "C" average (2.0) in work done at the University of South Florida. At least 40 of the 120 credits must be in courses numbered 300 or above.

2. General education requirements of at least 39 credits fulfilled in the College of Basic Studies, including CB 401 (the Basic Studies Senior Seminar), or transferred equivalents. Proficiency must also be shown in four physical education areas.

3. Completion of a major in a subject or an integrated major involving several subjects. There must be at least a 2.0 average in this major. To insure breadth of experience and to preclude undue specialization, a student must earn (or show competence in) a minimum of 80 credits outside his discipline of concentration, 60 of which must be outside the division of his major.

4. Work transferred from schools, which is applied to meet our requirements, will not be included in the grade point average computed for graduation, but it will be computed when determining graduation with honors.

5. Completion of the Graduate Record Examination Area Test.

6. A student must earn the last 30 credits in residence at the University of South Florida.

Organization and Special Features

The College of Liberal Arts is organized into four divisions for the administration of staff and courses: Fine Arts, Language-Literature, Natural Sciences and Mathematics, and Social Science.

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.

CURRICULA AND PROGRAMS

Division of Fine Arts

The Division of Fine Arts serves a 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 broad courses in art, music and theatre arts with specific curricular offerings in (1) visual arts, (2) dramatic arts, and (3) music arts. 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, grades 1-12. Allied courses are listed under the humanities major.

Visual Arts

The Visual Arts curriculum is designed for students interested in continuing their art 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, or art history by selecting the appropriate sequence of courses. The painting
sequence is typical and is: AR 207, 208, 307, 308, 411, 421, 431 and 441; FA 403, 405 and 491, and nine credits in art history selected from AR 301, 303, 403, and 501, for a total of 49 trimester hours. A minimum of 24 hours outside the Division of Fine Arts must be part of the total program.

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 Art Education curricula for both the bachelor and master degrees are listed under the College of Education.

A proposal has been made for the initiation of a Master of Fine Arts degree in Visual Arts in September 1966.

MUSIC ARTS

The Music Arts curriculum is designed for those gifted in performance on some instrument or in voice, whose ultimate goal may be that of artist or studio teacher. Requirements for a major in piano are listed here; those seeking majors in other instruments or voice should substitute the appropriately numbered music courses. Piano students: MU 213, 214, 313, 314, 325 (eight credits), 413, 414, 307, 308, 525 (eight credits), 571; FA 401, 405, and 491, for a total of 49 credits. A minimum of 24 credits outside the Division of Fine Arts must be part of the total program.

Placement examinations are required of all new registrants in music courses. Scheduling of these examinations is made through the Music Office of the Division of Fine Arts.

All music majors are required to pass a piano proficiency examination prior to entrance into upper level. Music majors are required to play in an ensemble each trimester.

The Music Education curricula for both the bachelor and master’s degrees are listed under the College of Education.

THEATRE ARTS

Students desiring to concentrate in performance or technical theatre must take TA 111, 221, 339, 501; any two of TA 431, 433, 435, 437; FA 401, 403, 491; and at least four of the following, depending upon their choice of major concentration: TA 411, 412, 413, 421, 422, 423, 429, and 451, plus any two elected courses in Theatre Arts for a total of 45 credits.

Division of Language and Literature

ENGLISH

A major in English requires a sequence of courses in major writers within four periods of English 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 33 credits, all English majors must take four courses from EN 201, 203, 305, 306, and 307. In addition, they must take EN 331, 411 or 519, two electives at the 400 level, and three at the 500 level. Not more than two courses in writing may be counted as part of the 33-hour requirement, although students may elect an additional six credits of writing within the 40-hour limit. Recommended electives for English majors include courses in philosophy, history, foreign language, speech, and linguistics.

JOURNALISM PROGRAM: Students interested in journalism electives may choose among four basic courses, supplemented by practical laboratory work on campus publications.

Those seeking careers in the mass media after graduation will be directed to the various daily and weekly newspapers, radio and television stations, advertising agen-
cies, magazines and public relations firms with which the Journalism Program maintains close contact. These students, who have their majors in another field, may elect to become journalism advisees and should schedule their courses preferably in this order: CB 101 (Functional English-Journalism section), EN 341, 343, 347 and 349, along with related electives, after consultation with the Journalism Program Office.

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

FOREIGN LANGUAGES

Language studies in the College of Liberal Arts fall into three general groupings: (1) linguistics, providing instruction in language structure and development; (2) classical languages and literature, providing instruction in Latin; and (3) modern foreign languages and literature, providing instruction in French, German, Italian, Portuguese, Russian, and Spanish.

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

Major Requirements

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

Modern language majors must complete at least 30 credits in the chosen language beyond the functional language courses. Among these 30 credits must be the following:

LATIN: LA 311, 313, 411-412, 413-414, and 517; LI 301, 501; and HI 321, GR 301-302, LA 581, AR 301, and HU 323, 324 are recommended electives.
RUSSIAN: RN 301, 303, 305, 306, 551, and 552.
SPANISH: SP 301, 303, 305, 306, 523, 524, 541, 542, and 491.

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

Combined Majors

Combined majors are offered in any two modern languages or in Latin and a modern language. For a major in two modern languages, a student must take the courses numbered 301, 303, 305, and 306 in each of two languages and an additional 12 credits in his first language and an additional six credits in his second language. Students majoring in Latin and a modern language must take LA 311, 313, 411-412, 413-414, and 517; LI 301 and 303; and courses numbered 301, 303, 305, and 306 in the modern language, plus six additional hours of literature in the modern language.

A student majoring in any one of the Romance languages may count RL 417 toward his major requirements.

PHILOSOPHY

The philosophy program includes five areas of study: logic and scientific method, history of philosophy, theory of knowledge, theory of reality, and theory of values. Majors in philosophy must complete at least 30 credit hours in the program, including PY 303, 333, 334, and at least six credits on the 500 level.

Credit toward a major in philosophy will be extended for PS 323.
The Speech curriculum provides courses for all students interested in increasing their understanding and skills of oral communication, and offers major programs in general speech, rhetoric and public address, and broadcasting. In addition, two combination major programs are available: an English-Speech program, designed primarily, though not exclusively, for those preparing to teach in the secondary schools; and a Speech-Theatre Arts program offered jointly by the Language-Literature and Fine Arts Divisions.

A major in Speech requires a minimum of 27 credits; the combination English-Speech program requires 42 credits in English and Speech, and three credits in Theatre Arts; and the joint Speech-Theatre Arts program requires 36 credits, divided equally between Speech and Theatre Arts courses.

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

General Speech sequence: SH 201, 203, 321, 363, 491, and 12 credits of Speech electives.

Rhetoric and Public Address sequence; SH 201, 203, 363, 491, 565, and 12 credits of Speech electives, nine of which must be in rhetoric and public address or discussion.

Broadcasting sequence: SH 201, 203, 241, 321, 491, and 12 credits of Speech electives, nine of which must be in broadcasting.

English-Speech sequence: SH 201, 203, 321, either 361 or 365, 491, and six credits of Speech electives; any three of EN 201, 203, 305, 306; and 307, 321, 411 or 519, 517; TA 303.

Speech-Theatre Arts Sequence: SH 201, 203, 321, 491, 521, and one 300, 400, or 500-level elective in Speech; TA 111, 221, 303, 412, and any two courses chosen from 431, 433, 435, and 437.

Division of Natural Sciences

The Division of Natural Sciences offers courses in astronomy (AS), bacteriology (BO), botany (BO), chemistry (CH), geology (GY), mathematics (MA), physics (PH), zoology (ZO), interdisciplinary courses in botany and zoology (BZ), and oceanography (OG).

They 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 designed for non-scientists.

THE B.A. DEGREE PROGRAMS

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

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

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

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

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

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

A student passing two eight-hour liberal arts sequences in separate physical science disciplines with a grade of "C" or higher in each course can receive an automatic waiver of CB 107-108.

A student passing BZ 201, BO 202, and ZO 202 with a grade of "C" or higher in each course can receive an automatic waiver of CB 105-106.

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

MASTER'S DEGREE PROGRAMS

The Natural Sciences Division initiated, in Trimester I, 1965, graduate programs leading to the Master of Arts in the fields of Bacteriology, Botany, Mathematics, Physics, and Zoology, and a Master of Science in Chemistry. In addition, Master's Degree programs are contemplated in the near future in other science fields, including Astronomy and Geology.

Students apply for graduate work through the Natural Sciences and Mathematics Division and are recommended for admission by the department in which they intend to concentrate. A departmental committee is appointed which supervises and guides the program of the candidate. The general admission requirements for graduate work are given on page 87. 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.

TEACHER EDUCATION PROGRAMS

In cooperation with the College of Education, the Division of Natural Science and Mathematics offers B.A. degree programs with departmental majors and the divisional major leading to certification for teaching in the state of Florida in Biology, Chemistry, Physics, and Mathematics. See page 61.

Similarly, the division offers master's degree programs in teaching for secondary schools in Biology, Chemistry, Physics, and Mathematics. See page 64.

TEACHING IN FOUR-YEAR LIBERAL ARTS AND JUNIOR COLLEGES

The M.A. and M.S. degree programs are appropriate for certain teaching positions in four-year liberal arts colleges and in the junior colleges. In addition, the following program is offered in cooperation with the College of Education.

MASTER OF ARTS DEGREE PROGRAM FOR JUNIOR COLLEGE TEACHERS

1. Specialization (24-30 credit hours)

   The student’s program will include a minimum of 24 hours of work in a discipline, normally nine hours of which will be at the 600 level. The specialization sequence will be approved by his designated departmental 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 departmental major. Students admitted without such preparation may be required to demonstrate through proficiency tests their readiness to pursue the program as outlined or additional course work 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 appropriate electives from other fields of study approved by his departmental adviser.

2. Professional Education (6-12 hours)

A. COURSES IN HIGHER EDUCATION (6 hours)

All students enrolled in this program will take:

1. *ED 651, The Junior College in American Higher Education.* History of higher education, philosophical and cultural bases for definition of its role, and contemporary issues such as control, financing, and curricular patterns. The place and problems of the community junior college will be central concerns of the course.

2. *ED 653, Seminar in College Teaching.* Implications of learning theory and student characteristics for teaching at the college level. Each student will serve as an instructional assistant in his academic area and will present a paper on selection and organization of content, teaching techniques, and evaluation procedures appropriate thereto.

B. INTERNSHIP (0-6 hours)

1. Those students who do not have the internship requirement for certification (six hours in internship or two years of satisfactory teaching experience at the secondary or college level) must complete an approved internship experience. At least one-half of this internship must be in a junior college. Typically, this will consist of full-time teaching for one trimester or part-time teaching for two trimesters with observation by and consultation with a member of the University of South Florida faculty.

   The full-time internship will normally be in a salaried position on a junior college faculty. The part-time internship may be on a paid basis as circumstances permit.

2. Those students who have met the internship requirement may take an additional six hours in specialization in a related area, in electives approved by his advising committee, or waive further requirements as approved by the advising committee. In the last case, he may complete the program with as few as 30 hours. This does not preclude the possibility of an internship for 3-6 hours credit if the student and advising committee feel it desirable.

3. Administration, Control and Advising

   This program will be dually controlled by the College of Education and the college offering the specialization courses. It will be under the immediate direction of the candidate’s committee with the departmental adviser as chairman.

   Admission will be through the department of the student’s major in the usual manner as other Master’s Degree candidates are admitted through the appropriate college office in conference with the representative of the College of Education.

   A graduate committee will be appointed for each student consisting of two members from the discipline and one member from the College of Education. This committee supervises the individual student’s progress, plans his program and recommends him to the deans of the two colleges, or their representatives, admission to candidacy and certification to graduation.

MAJOR REQUIREMENTS

ASTRONOMY

Requirements for the B.A. Degree: A major in astronomy will normally consist of a minimum of 24 credits in the discipline, including AS 201, 202, and 413; a selection of three courses from AS 443, 521, 531, 533, 535, and at least two trimesters of AS 361 or
AS 481. In addition, the student will take PH 221-223, 222-224 and 315, and two more advanced physics courses, preferably PH 405 and 431. He will also take MA 203, 303, 304, 405, and 406 or a combination of other advanced mathematics courses which cover essentially, at least, the same matter as MA 405 and 406, as for instance, MA 401, 541 and 542. The student is expected to familiarize himself with the technique of programming electronic computers before the end of the fourth trimester. 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.

BOTANY AND BACTERIOLOGY

The Department of Botany and Bacteriology offers bachelor of arts degrees and master's degrees in Botany and Bacteriology.

Requirements for the B.A. Degree: Required courses are BO 202, 421 (or 551), 491, and BZ 201, 331, and 351. A minimum of eight elective credits in botany or botany-zoology must be selected from either of the two major sequences offered in this department. Students must take an additional 20 or 24 credits in the Division of Natural Science, including ZO 202, CH 211-212, and 331-332. (CH 303 may be taken with the consent of the adviser in lieu of 331-332.) Mathematics background must include MA 101 or equivalent. Selection of a foreign language, preferably French, German, or Russian, is also strongly recommended.

Students are advised to enroll in BZ 201 and CH 211 during the freshman year and to seek completion of basic studies science requirements by waiver or credit by examination. Prospective majors must seek early curriculum counseling from the Botany Department chairman.

Students should elect additional courses depending upon their interest. The two major course sequences are:

Major in Botany: BO 311, 419, 443, 445, and 481; BZ 415 and 445; GY 201; PH 205-207, 206-208; and MA 345.

Major in Bacteriology: BO 417, 481, 553, 557, 655, and BZ 415; PH 205-207, 206-208; MA 203, 303, 304, and CH 441, 442, 443.

Requirements for the M.A. Degree: General requirements for graduate work are given on pages 87-88.

Students are admitted for graduate work in Botany or in Bacteriology if they present the requisite background in the biological sciences. The bachelor of arts or bachelor of science degree with major in botany, zoology, or biology is recommended in addition to a satisfactory grade on the Graduate Record Examination.

For a master's degree in Botany or in Bacteriology, the following are required: (1) a minimum of 15 credits in courses numbered 600 or above, no more than six of which may be given for the thesis or research (BO 681, 699); (2) at least four credits of cognate subjects exclusive of botany or zoology; (3) either a written thesis in a field of specialization approved by the advisory committee (3-6 credits) and an examination based on the results of an original study, or an equal number of credits of graduate level courses in botany or zoology; (4) additional credits in either botany or zoology from the upper level may be scheduled to make a minimum of 30 credits beyond the bachelor's degree and exclusive of prerequisites.

Programs for Teacher Education: For bachelor of arts degree secondary school teachers in biology, see page 61. For master of arts for teachers in biology, see page 64.

CHEMISTRY

Requirements for the B.A. Degree: A chemistry major must include the following chemistry courses: CH 211, 212, 321, 331, 332, 441, 442, 443, 444, and 491. Other required courses include MA 203, 303, 304, and either PH 221-223, 222-224, or PH 205-207, 206-208, and 315. Two years of college level German, French, or Russian is strongly recommended. The above courses constitute a minimum curriculum for a major in chemistry. It is recommended that this program be strengthened with additional courses
to be selected by the student in consultation with his chemistry faculty adviser. To
qualify for admission to graduate schools, a student should take additional courses
which will emphasize his major interest. Two programs for this purpose are as follows:

Emphasis in Physical Chemistry: CH 511, 521, MA 401, and advanced physics
elective.

Requirements for the M.S. Degree: General requirements for graduate work are given
on pages 87-88.

Graduate students admitted to work for the master's degree will be required to
take written diagnostic examinations in the fields of analytical, inorganic, organic, and
physical chemistry. (These examinations will be at the level recommended by the latest
A.C.S. accreditation committee report and cover the respective subjects to the extent
that they are covered in the undergraduate chemistry courses CH 332, 443, 511, and
521. In the event that a student fails to show satisfactory performance in any of the
diagnostic examinations, he may be required to register for prescribed courses.

The curriculum for a chemistry major will vary with the area of his thesis. The
thesis will carry not less than three nor more than six credits. A minimum of 30 credits
including the thesis is required and one-half of these credits must be in chemistry
courses numbered 600. The specific course requirements will be determined by his ad
visory committee on the basis of his diagnostic examination results and his proposed
research.

In addition to the course requirement, each student will present an oral defense of
his thesis for approval of his advisory committee.

Programs for Teacher Education: For bachelor of arts degree secondary school teachers
in chemistry, see page 61. For master of arts degree for teachers in chemistry, see
page 64.

Students planning to teach at the college level should take the M.S. Degree in
chemistry.

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 24
credits in the discipline of major concentration and a minimum of 16 credits in the divi
sion outside that discipline. These 16 credits must be approved by the student’s adviser
and must include a minimum of three at the 300 level or above. Prospective teachers
should also consult the College of Education section of this catalog for information
about certification requirements in the science field. Pre-medical and pre-dental stu
dents 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 recom
mended 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,
geophysics, and geophysics.

GEOLOGY

Requirements for the B.A. Degree: A major in geology will normally include GY 201,
301, 303, 311, 312, 361, 503, and six elective credits in geology. In addition, the pro
gram must include CH 211, 212; PH 205-207, 206-208, and MA 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 GY 201 and CH 211 in the freshman year and to seek curriculum counseling with a geology adviser early in his college career. A student passing GY 201 and 302 with a grade of "C" or higher in each course can receive an automatic waiver of CB 107-108.

Marine Geology

One of the major divisions of oceanographic study, marine geology, is a part of the program of the Geology Department. Courses and research in marine geoscience are conducted in the department, at Bayboro Harbor in St. Petersburg, or on nearby waters. A geology major may, as a part of his program and with the guidance of his adviser, select electives from among GY 511—Marine Geology, GY 583—Introductory Geological Oceanography, GY 583—Geochemistry, and others, that prepare him for graduate work in geological oceanography or for some phases of professional work. A major interested in marine geology should contact the chairman of the department for further details.

Teacher Education: It is recommended that students desiring to teach science at the secondary level include basic courses in Geology and Earth Science as part of their curriculum. Some courses also give graduate credit.

Master's Degree: The Geology Department offers a limited number of courses at the graduate level in support of other science programs, and plans to initiate the Master of Arts Degree in Geology in 1967-68.

MATHEMATICS

Requirements for the B.A. Degree: Majors must have 32 credits in mathematics, including MA 101, 203, 303, 304, 409, and 421. (MA 101 is not required of those who begin with MA 203.) Suggested upper level courses for a major in mathematics and for a major in mathematics for teaching in secondary school are as follows:

Major in Mathematics: MA 405, 406, 513, 514, 523, 524, 531, and 532.

Major in Mathematics for Teaching: MA 345, 405, 423, 445, 523, and 531.

Variations in course selection for special needs is to be done in consultation with the appointed adviser.

The following is a suggested course program for the first four trimesters:

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<td>CB 101</td>
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<td>CB 103</td>
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<td>Language</td>
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<td>Elective</td>
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Requirements for the M.A. Degree: General requirements for graduate work are given on pages 87-88.

A thesis is optional. The thesis program requires a minimum of 30 credits of course work, plus the thesis carrying three to six credits. The non-thesis program requires 36 credits of course work. In either case, one-half of the course work must be taken in courses numbered 600.

For each of the above programs, one of the following three 6-hour courses is required: MA 615-616, 625-626, 633-634, and six hours in each of the disciplines—analysis, algebra, and topology. MA 691 is required each trimester, and may be omitted or taken more than four 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.
Programs for Teacher Education: For bachelor of arts degree secondary teachers in mathematics, see page 61. For master of arts degree for teachers in mathematics, see page 64.

PHYSICS

Requirements for the B.A. Degree: Majors must have one year of general physics (consisting of either PH 205-207, 206-208, and 315, or PH 221-223, 222-224), PH 307, 341, 407, 409, plus one advanced laboratory. Additional physics courses sufficient to total 28 credits are required; 22 of these credits must be in courses numbered 300 or above. The student will also take MA 401 and CH 212.

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. A student may present for graduation no more than eight credits in physics courses numbered below 300. Selection of a foreign language, preferably French, German, or Russian, is also strongly recommended.

Requirements for the M.A. Degree: General requirements for graduate work are given on pages 87-88.

A minimum of 30 credits, not more than six of which may be for thesis research and writing. Of these 30 credits, 15 must be in physics courses numbered 600. The mathematics proficiency test is also required.

When a student is admitted to the graduate program in physics, an advisory committee will be appointed by the chairman for each student. This committee will serve in the capacity of an adviser and will also keep close check on the progress of the student in his work. The committee will have the right to add any special requirement to meet any deficiency in background and will administer a comprehensive examination to the student before recommending that a degree be granted.

Programs for Teacher Education: For a B. A. degree secondary school teacher in physics, see page 61. For M.A. degree for teacher in physics, see page 64.

ZOOLOGY

The Zoology Department offers the bachelor of arts and master of arts degrees. For beginning students, the following curriculum is provided:

FRESHMAN CURRICULUM—ZOOLOGY MAJORS
(including pre-medical and pre-dental)

<table>
<thead>
<tr>
<th>First Term</th>
<th>Second Term</th>
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<tbody>
<tr>
<td>BZ 201, Introductory Biology</td>
<td>ZO 202, Animal Kingdom</td>
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<tr>
<td>CH 211, General Chemistry</td>
<td>CH 212, General Chemistry</td>
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<tr>
<td>CB 101, Functional English</td>
<td>CB 102, Functional English</td>
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<tr>
<td>PE 101, Introductory P.E.</td>
<td>PE—-, P.E. Elective</td>
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<td>Electives*</td>
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* For most students these should be a foreign language (preferably German, French, or Russian) and/or mathematics (either CB 109-110 or MA 101-203).
† Normally 15 credits is a full term of college course work. Students with high placement scores should consider taking 17 or 18 credits.

Requirements for the B.A. Degree: A zoology major must include the following courses: BZ 201, ZO 202, 311 or 312, BZ 331 or ZO 421, and ZO 491. In addition, five elective courses in biology (BZ, BO or ZO prefixes) are required excluding BO 481 and ZO 481. Other required courses include CH 211, 212, 331, and 392 (CH 303 may be taken with the consent of the zoology adviser in lieu of CH 331-332). The required courses should be strengthened by electives in mathematics and physics. Selection of a foreign language, preferably German, French, or Russian, is also strongly recommended. Students are advised to enroll in BZ 201 and CH 211 during the freshman year and to seek early curriculum counseling from the zoology adviser.
Requirements for the M.A. Degree: General requirements for graduate work are given on pages 87-88.

Graduate students must demonstrate ability to translate into English the pertinent scientific literature in one foreign language, preferably German, French, or Russian.

A minimum of 30 credits must include 15 in zoology courses numbered 600 or above, not more than six of which may be for the thesis.

Programs for Teacher Education: For bachelor of arts degree for secondary school teachers in biology, see page 61. For master of arts degree for secondary school teachers in biology, see page 64. Students planning to teach at the college level should take the master of arts degree in zoology (described above).

OCEANOGRAPHY

The program in Oceanography offers one undergraduate course (OG 311). There are plans to offer additional courses at the graduate level and, eventually, a master's degree in Oceanography. Undergraduates with an interest in oceanography are urged to major in a field of their choice (Zoology, Botany, Geology, Chemistry, Physics, or Engineering). After receiving the bachelor's degree, the student should seek a broad training in oceanography at the graduate level.

PRE-MEDICINE AND PRE-DENTAL

All entering freshmen and other lower level students planning to attend medical school should register their names with the coordinator of student advising as soon as possible. All pre-medical students who have been admitted to the upper level should register their names with the chairman of the Pre-Medical Advising Committee in the Division of Natural Sciences at their earliest convenience. The Pre-Medical Advising Committee will counsel the pre-medical students relative to their pre-professional planning. Information and advice on general and special requirements of specific medical or dental schools may be obtained by either the student or his adviser from this committee.

Good academic performance and strong recommendations favor admission into medical schools. Accordingly, quality of college work and liaison with the pre-medical adviser are of great importance. The general curriculum which pre-medical students should complete includes English, Mathematics, Zoology, Chemistry, Physics, and courses in the Humanities and related areas.
Division of Social Science

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.

For convenience, the social sciences are divided into a number of disciplines or fields, each approaching the subject in a particular way. The major requirements of each discipline are indicated below.

Since most modern social problems are complex, requiring analysis from several vantage points, a number of interdisciplinary courses (prefix "SS") are provided to afford the student a rounded view of the problem and alternative solutions. These social science division courses are offered primarily for juniors and seniors.

ANTHROPOLOGY

Majors must have at least 27 credits, including AN 201, 311, 321, 431, 491, and LI 401. Training in statistics and appropriate foreign languages is recommended.

ECONOMICS

The economics program is offered in conjunction with the College of Business Administration. The liberal arts major in economics requires 27 credits in economics, including EC 201-202, 301, 323, 331, 401, 423, and two additional upper-level economics courses; and, in addition, AC 201-202.

GEOGRAPHY

A major in geography consists of a minimum of 29 hours in geography courses, including GE 201, 301, and seven hours in each of the following: GE 403, 405, 409. The latter three courses are to be planned and coordinated with the adviser. In addition, majors are required to take GY 473 or 533, and a course in statistics (SS 301 or MA 345 or EC 331).

HISTORY

A minimum of 30 credits is required for a major. From Part I, requirements are HI 111-112 and either HI 121-122 or 231-232; from Part II, at least 12 credits, including HI 321 or 323; from Part III, HI 491 and 587, taken during the senior year.

Majors intending to pursue graduate work should take a minimum of two years of a modern foreign language (French, German, Russian, Spanish), GE 201, HI 341-342, SS 301, SH 201, and at least 18 credits drawn from the following areas: geography, political science, philosophy, and literature or humanities.

History majors, whether intending graduate or professional work, should have at least two courses drawn from the Interdisciplinary Social Science program.

POLITICAL SCIENCE

Majors must have at least 30 credits in the field. Each major must pursue a core program, including PS 201, 203 or 453, 321, 323 or 463, 311 or 331, 351, 491, and SS 301.

PSYCHOLOGY

Majors must complete at least 30 credits in the field, including PC 201, 311, 312, 331, 335, 491, 503, two other psychology courses, and SS 301. 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.

SOCIAL SCIENCE DIVISIONAL MAJOR

This major is designed to provide broad training for the more able student. It requires 45 credits in the division, with a minimum of 15 credits in one discipline, plus
the senior seminar (491) in this or some other social science discipline. At least nine
credits are required in Interdisciplinary Social Sciences courses (prefix "SS") and the
rest of the 45 credits should be broadly distributed among the other social science disci­
plines. Most of the work must be chosen from upper level courses. Specific courses will
be advised depending upon the career intentions of the student.

A different kind of divisional major for prospective social studies teachers is de­
scribed under the College of Education requirements on page 61.

SOCIOLOGY

Sociology majors may pursue either of two concentrations:

(1) General Sociology: 30 credits including SO 201, 321, 491, 515, and SS 301. Other
courses may be selected from the sociology program and students may choose as
many as two of the following: SS 321, 325, 411.

(2) Social Welfare concentration: 33 credits, including SO 201, 261, 301, 321,
351, 501, 505, 507, 543, and either 561 or 563.

PRE-LAW

The American Association of Law Schools suggests that students preparing for law
school should acquire the following basic skills: (1) effective expression, both written
and oral, in English language; (2) critical practice in the use of creative and analytical
reasoning in a variety of problem solving situations.

Students wishing to major in pre-legal studies should consult with the pre-law ad­
viser.

INTERNATIONAL AND AREA STUDIES

Three programs are currently offered in International Studies, Afro-Asian Studies, and
Latin American Studies. The core curriculum common to the three includes 23 credits:
AN 201, EC 201-202, GE 201, either HI 311 or PS 331, and two of the following: HI
351, PS 561, SS 311, 361, and 449. Twelve 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.

Additional special requirements in the three programs follow. Up to six credits may
be substituted for these requirements by successfully passing CB 395, Overseas Study.

INTERNATIONAL STUDIES

International Studies majors must have 12 additional credits to include PS 333, two
courses chosen from among SS 341, 343, 345, and 347; and one of the following: AN
303, 305, 309. The language credit may be in any modern language.

AFRO-ASIAN STUDIES

Afro-Asian Studies majors must satisfy the language requirement in either French
or Russian and must also take AN 303, HI 371, HU 431 or 432 or 433 or AR 403,
and one of the following: SS 343, 345, 347.

LATIN AMERICAN STUDIES

Latin American Studies majors must satisfy the language requirement in Spanish or
Portuguese and must take 12 additional hours, including SS 341, AN 309, HI 351, and
one of the following: AN 481, GE 581, HI 485, PS 481 or SP 581.
GRADUATE STUDY

Degree Programs Offered

COLLEGE OF BUSINESS ADMINISTRATION
Master of Business Administration. See page 53 for a description.

COLLEGE OF EDUCATION
Master of Arts degree programs in—
- Elementary Education (with emphasis on Curriculum, Supervision, or Reading)
- Secondary Teaching Fields:
  - Distributive Education
  - English Education
  - Mathematics Education
  - Science Education (Biology, Chemistry, or Physics)
  - Social Science Education

K-12 Certification Areas:
- Art Education
- Guidance
- Library and Audio Visual
- Music Education
- Special Education: Mental Retardation or Speech Pathology

Junior College:
- Biology
- Chemistry
- Mathematics
- Physics

See pages 61 to 66 for descriptions of these programs.

COLLEGE OF ENGINEERING
A Master of Engineering (Electrical) and a Master of Engineering (Administration) are presently offered by the College of Engineering as non-thesis degrees. It is planned that an undesignated thesis degree, Master of Science in Engineering, will be available in September 1966.

COLLEGE OF LIBERAL ARTS
Master of Arts degree programs in—
- Bacteriology
- Botany
- Mathematics
- Physics
- Zoology

Master of Science degree in Chemistry.
See pages 77 to 83 for descriptions of these programs.
Requirements for Admission to Graduate Study

1. Degree Seeking Graduate Students

   Admission requirements for a degree-seeking graduate student shall include:
   (a) A baccalaureate degree from an approved college or university, with an academic average of "B" on the last two years of undergraduate work.
   (b) Satisfactory scores on the Graduate Record Examination aptitude test. A student may be provisionally admitted by presenting satisfactory scores on such examinations as the National Teacher Examination or Business Administration Examination, with the understanding that the GRE will be taken during the first trimester of enrollment. These examinations must have been taken within five years preceding application for admission.
   (c) Approval by an official of the program for which the student is applying, which entails additional requirements specified in the descriptions of the various degree programs.

2. Non-Degree Seeking Graduate Student

   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 master's degree requirements under the following conditions:
   (a) At the time of enrollment in the course, the student must have a baccalaureate degree, or he must complete degree requirements during that trimester and the course must be beyond those requirements.
   (b) The student must be admitted to the master's degree program within one year of the time the course was begun.
   (c) The course must be of such level and relevance as to be included in the degree program approved for this student upon admission to candidacy. Assurance of this is uncertain unless the form "Request to Take Courses for Graduate Credit" is completed prior to registration. Admission to graduate study does not constitute admission to candidacy for the degree. (See Admission to Candidacy, below.)

Regulations Governing Graduate Study

MAJOR PROFESSOR

A major professor or adviser will be named for the student in his first term of work. The major professor is named by the division of the University concerned with the consent of both student and professor.

PROGRAM OF STUDY AND COURSE REQUIREMENTS

During the first term of study in consultation with his adviser, the student should plan a program of work to be completed for satisfaction of degree requirements.

At least one-half of all credits applied to the master's degree requirements must be in courses which are for graduate students only (600 level), and at least two-thirds of the degree program must be in structured course work.

Courses at the 500 level are acceptable for credit toward the master's degree when taken as a part of a planned degree program. Graduate credit may be earned in only such 400 level courses as have been specifically approved by the Graduate Council. Students enrolled in such courses as part of their planned degree program will be expected to demonstrate a superior level of performance.

QUALITY OF WORK

Graduate students must maintain "B" quality work (an overall average of 3.0) in all courses taken for graduate credit.
LOAD
A student taking nine or more hours of graduate work in a full trimester or five or more hours in a summer term will be classified as a full-time student. The normal maximum load is 13 hours in a full trimester and six hours in a summer session.

RESIDENCY
A minimum of one-half of the master's degree program must be completed on campus. The student must take at least one trimester of work carrying a load of nine credit hours or two summer sessions of five credit hours each.

TRANSFER AND OFF-CAMPUS CREDIT
Transfer of credit from another recognized graduate school is limited to six hours. All transferred credit must (1) be evaluated as graduate credit by the Registrar, (2) be approved by the program or college concerned, and (3) have been completed with grades of "B" or better.

A maximum of one-half of a planned degree program may consist of approved University of South Florida courses taken in off-campus centers.

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.

ADMISSION TO CANDIDACY
During the term in which he will complete 12 hours of graduate work at the University of South Florida, the student must apply for admission to candidacy for a degree. A committee will review the student's record to date, guidance test scores, and other pertinent data, and will make a recommendation as to whether the student should be (1) admitted to candidacy, or (2) denied further work toward a degree.

FINAL COMPREHENSIVE EXAMINATION
Prior to clearance for the degree, the candidate must perform satisfactorily on a comprehensive examination in his major field.

APPLICATION FOR DEGREE
During the term in which degree requirements will be met, the candidate must file an application for degree in the Office of the Registrar. Degree application deadline dates are indicated in the academic calendar, pages 4-5.

Commencement Convocation
COURSE DESCRIPTIONS

All courses offered for credit by the University of South Florida are listed here in alphabetical order according to subject area.

The first line of each course description includes the prefix and course number, title, and number of credits. Credits separated by a colon indicate lecture and laboratory courses taught as a unit:

**PH 205-207. GENERAL PHYSICS (3:1)**

Credits separated by a comma indicate two unified courses offered in different trimesters:

**HI 111-112. AMERICAN HISTORY (3,3)**

Credits separated by a hyphen indicate variable credit:

**SO 481. INDIVIDUAL RESEARCH (1-3)**

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 (AC)
- Anthropology (AN)
- Art (AR)
- Astronomy (AS)
- Basic Studies (CB)
- Botany and Bacteriology (BO)
- Interdisciplinary Botany-Zoology (BZ)
- Chemistry (CH)
- Cooperative Education (CE)
- Developmental Mathematics (DM)
- Developmental Reading (DR)
- Economics (EC)
- Education
  - Core (ED)
  - Art Education (AE)
  - Distributive Education (DE)
  - Elementary Education (EE)
  - Guidance (GU)
  - Library-Audio Visual Education (LE)
  - Music Education (ME)
  - Physical Education for Teachers (EP)
  - Special Education (SE)
- Engineering (EB, EG)
- English (EN)
- Finance (FI)
- Intradivisional Fine Arts (FA)
- French (FR)
- General Administration (GA)
- Geography (GE)
- Geology (GY)
- German (GN)
- Greek (GR)
- History (HI)
- Humanities (HU)
- Italian (IT)
- Latin (LA)
- Linguistics (LI)
- Management (MM)
- Marketing (MK)
- Mathematics (MA)
- Music (MU)
- Interdisciplinary Oceanography (OG)
- Office Administration (OA)
- Philosophy (PY)
- Physical Education (Basic) (PE)
- Physics (PH)
- Political Science (PS)
- Psychology (PC)
- Romance Languages (RL)
- Russian (RN)
- Interdisciplinary Social Sciences (SS)
- Sociology (SO)
- Spanish (SP)
- Speech (SH)
- Theatre Arts (TA)
- Zoology (ZO)
ACCOUNTING

Faculty: Jurgensen, chairman; Causey, Danco, Deyo, Dickerson, W. R. Garrett, Hubbard, McClung, McMullan, West.

AC 201. ELEMENTARY ACCOUNTING (3)
Basic theory and procedures of recording and reporting financial activities.

AC 202. ELEMENTARY ACCOUNTING (3)
PR: AC 201. Accounting theory and practices for various equity structures. Special problems of payrolls, taxes, departments and branches.

AC 301. INTERMEDIATE ACCOUNTING (3)
PR: AC 202. Advanced theory and procedures of recording and reporting activities affecting working capital and non-current assets.

AC 302. INTERMEDIATE ACCOUNTING (3)
Continuation of AC 301 with concentrated study of activities in fixed assets, long-term debt and corporate capital. Intensive treatment of analytical processes.

AC 305. MANAGERIAL ACCOUNTING (3)
PR: AC 202. The utilization of accounting information by management in costs, budgeting, tax reporting, research, auditing, and other analyses.

AC 323. GOVERNMENTAL AND INSTITUTIONAL ACCOUNTING (3)

AC 401. ADVANCED ACCOUNTING (3)
PR: AC 302. Special problems of accounting in partnerships, sales procedures, and fiduciaries.

AC 402. ADVANCED ACCOUNTING (3)
PR: AC 302. Continued study of special problems, including consolidations, foreign branches and subsidiaries, and actuarial science.

AC 411. FEDERAL TAXES (3)

AC 412. FEDERAL TAXES (3)

AC 421. COST ACCOUNTING (3)

AC 423. AUDITING (3)
PR: AC 302 and 421. Principles and procedures of internal and public auditing. The ethics, responsibilities, standards and reports of professional auditing.

AC 425. BUDGETING (3)
PR: AC 421. The development of budgets and their relation to expense and cost control, including the use of standard cost as a budgetary tool.

AC 431. CONTROLLERSHIP (3)
PR: CI. The theory and practice of the functions, techniques and problems of the financial officers of business organizations.
AC 433. C.P.A. REVIEW (3)
PR: CI. A review of the various areas of accounting, including concepts; cost, governmental, asset, liability, and equity accounting; consolidations; financial statements; and budgeting.

FOR GRADUATE STUDENTS ONLY

AC 601. MANAGERIAL ACCOUNTING AND CONTROL (3)
The interpretation and use of accounting data in planning and controlling business activity.

ANTHROPOLOGY

Faculty: Grange, chairman; J. B. Adams, Arnade.

AN 201. INTRODUCTION TO ANTHROPOLOGY (3)
The study of man as a biological, social, and cultural being.

AN 303. CULTURES OF AFRICA (3)
PR: AN 201 or CI. The ethnology of the native peoples south of the Sahara.

AN 305. CULTURES OF THE PACIFIC (3)
PR: AN 201 or CI. The ethnology of the native peoples of the Pacific Basin.

AN 307. INDIANS OF NORTH AMERICA (3)
PR: AN 201 or CI. The ethnology of the Indians north of the Rio Grande.

AN 309. INDIANS OF LATIN AMERICA (3)
PR: AN 201 or CI. The ethnology of the Indians south of the Rio Grande, with emphasis on the Maya, Aztec, and Inca.

AN 311. PHYSICAL ANTHROPOLOGY (3)
PR: AN 201 or CI. Methods and aims of physical anthropology; survey of the field.

AN 321. OLD WORLD ARCHAEOLOGY (3)
PR: AN 201 or CI. The methods and aims of archaeology and a survey of prehistory in Europe, Africa, and Asia.

AN 401. PERSONALITY AND CULTURE (3)
PR: AN 201 or CI. The effect of cultural institutions on the formation of personality and the way in which personality is expressed in cultural institutions.

AN 411. ARCHAEOLOGICAL FIELD METHODS (3-6)
PR: AN 201, 321 or 423, and CI. Class size and credit will vary with project; arrangement must be made with instructor prior to registration. May be repeated once for credit up to a total of six hours.

AN 423. NEW WORLD ARCHAEOLOGY (3)
PR: AN 201 or CI. A survey of the prehistory of North and South America.

AN 431. ETHNOLOGY (3)
PR: AN 201 or CI. The methods and aims of ethnology including a survey of the world's folk cultures.

AN 461. THE LITTLE COMMUNITY (3)
PR: AN 201 or CI. A general consideration of the little community in various societies, emphasizing the conceptual frameworks through which it may be viewed.
AN 481. INDIVIDUAL RESEARCH (1-3)
PR: 15 hours of AN and arrangement with instructor prior to registration. Topics vary; may be repeated once for credit.

AN 485. DIRECTED READING (1-3)
PR: 15 hours of AN and arrangement with instructor prior to registration. Topics vary; may be repeated once for credit.

AN 491. SENIOR SEMINAR (3)
PR: CI. The history, philosophy, literature, theory, and application of the discipline.

ART

Faculty: Covington, chairman; Cox, Fager, Gelines, Houk, Kronsoble, McCracken, Saff.

AR 207. VISUAL FUNDAMENTALS—DRAWING I (3)
Introduction to problems in drawing techniques and media.

AR 208. VISUAL FUNDAMENTALS—DESIGN I (3)
Introduction to problems primarily in two-dimensional design.

AR 301. ANCIENT AND CLASSICAL ART (3)
The art of Egypt, Mesopotamian Valley, Greece and Rome, Early Christian.

AR 303. MEDIEVAL AND RENAISSANCE ART (3)
Romanesque and Gothic art in Europe, Byzantine and Italian, Northern Renaissance and Baroque.

AR 307. VISUAL FUNDAMENTALS—DRAWING II (2)
PR: AR 207 and 208. Further exploration of drawing techniques and media.

AR 308. VISUAL FUNDAMENTALS—DESIGN II (2)
PR: AR 207 and 208. Further exploration of two and three-dimensional design, including letter forms as design elements.

AR 313. STUDIO TECHNIQUES (3)
An introductory studio course for the student who does not intend to major in art.

AR 371. LETTERING (3)
PR: AR 307 and 308 or CI. Basic problems in the design and execution of lettering in the fundamental Roman and sans-serif letter forms.

AR 373. JEWELRY AND CRAFTS (3)
PR: AR 307 and 308 or CI. Introductory course in the design and execution of jewelry and craft objects.

AR 403. ORIENTAL ART (3)
The art of India, China, and Japan.
The following four courses are introductions to specialized problems in the various media. Special stress placed upon techniques and materials. (AR 411, 421, 431, 441)

AR 411. PAINTING TECHNIQUES (3)
PR: AR 307 and 308 or CI.

AR 421. SCULPTURE TECHNIQUES (3)
PR: AR 307 and 308 or CI.
AR 431. CERAMIC TECHNIQUES (3)
PR: AR 307 and 308 or CI.

AR 441. GRAPHIC TECHNIQUES (3)
PR: AR 307 and 308 or CI.

AR 481. DIRECTED STUDY (1-6)
PR: CC. May be repeated.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

AR 501. 19th and 20th CENTURY ART (3)
European art from neo-classicism to contemporary, and art of the United States.

AR 511. PAINTING (3)
PR: AR 411. May be repeated. Advanced problems in the various painting techniques. Emphasis on individual creative expression.

AR 521. SCULPTURE (3)
PR: AR 421. May be repeated. Advanced problems in the various techniques of sculpture. Emphasis on individual creative expression.

AR 531. CERAMICS (3)
PR: AR 431. May be repeated. Advanced problems in the various ceramic techniques, including throwing and glaze calculation.

AR 541. GRAPHICS (3)
PR: AR 441. May be repeated. Advanced problems in the various graphic techniques. Emphasis on individual creative expression.

FOR GRADUATE STUDENTS ONLY

AR 601. ART HISTORY (3)
PR: CI. May be repeated.

AR 611. PAINTING (3)
PR: CI. May be repeated.

AR 621. SCULPTURE (3)
PR: CI. May be repeated.

AR 631. CERAMICS (3)
PR: CI. May be repeated.

AR 641. GRAPHICS (3)
PR: CI. May be repeated.

AR 681. RESEARCH (1-6)
PR: CI. May be repeated.

AR 699. THESIS (1-6)
PR: CI.

ASTRONOMY

Faculty: Eichhorn-von Wurmb, chairman; Carr, Robinson.

AS 201. INTRODUCTORY ASTRONOMY (4)
PR: Proficiency tests in mathematics and science. 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. lec-lab.
AS 202. INTRODUCTORY ASTRONOMY (4)
PR: AS 201. The stars, stellar atmospheres and interiors, interstellar matter, the local and exterior galaxies, cosmology. lec-lab.

AS 361. ASTRONOMICAL OBSERVING AND MEASURING (1)
PR: AS 201 and 202. Actual measurements at the telescope and in the laboratory; evaluation of the data. May be repeated up to three times.

AS 371. CONTEMPORARY THINKING IN ASTRONOMY (for non-specialists) (3)
PR: Junior or senior standing or CI. Current concepts of astronomy and space science of general interest; background facts; artificial satellites, space probes; surface conditions of planets and evolution of the stars; cosmology.

AS 413. GEOMETRY AND KINEMATICS OF THE UNIVERSE (3)

AS 443. STELLAR ASTRONOMY (3)
PR: AS 202, MA 303. The physical characteristics of stars and their distribution. The constitution, kinematics and dynamics of star groups; double stars, associations, clusters, galaxies.

AS 481. UNDERGRADUATE RESEARCH (1-3)
PR: Senior or advanced junior standing and CI. Participation in professional research with a view to publication of results.

AS 491. ASTRONOMY SEMINAR (1)
PR: Senior or advanced junior standing and CI. May be repeated once.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

AS 521. INTRODUCTION TO ASTRODYNAMICS (3)
CR: MA 405. The two-body problem, artificial satellites, elements of perturbation theory.

AS 531. STELLAR RADIATION (3)
CR: PH 405, 431, MA 406. The formation of the stellar spectrum; stellar atmospheres, interstellar matter; radio frequency radiation.

AS 533. STELLAR CONSTITUTION AND EVOLUTION (3)

AS 535. PHYSICS OF THE PLANETS (3)
PR: AS 201, 202, PH 221-223, 222-224. Planetary atmospheres, comets and meteors, evolution of the planetary system.

AS 583. SELECTED TOPICS IN ASTRONOMY (1-3)
PR: Senior or advanced junior standing and CI. Intensive coverage of special topics to suit needs of advanced students.

FOR GRADUATE STUDENTS ONLY

AS 611. POSITIONAL ASTRONOMY (4)
PR: AS 413. The accurate determination of relative and absolute star positions and related problems.
AS 621. ASTRODYNAMICS (4)
PR: AS 521. Dynamics of the planetary system, space light, theory of artificial satellites.

AS 663. STATISTICAL REDUCTION OF OBSERVATIONS (4)
PR: MA 421, 445, or equivalents. The theory of statistical adjustment (least squares) and applications.

AS 681. GRADUATE RESEARCH (1-3)
PR: CI.

AS 683. SELECTED TOPICS IN ASTRONOMY (1-3)
PR: CI.

AS 691. GRADUATE SEMINAR (1)

BASIC STUDIES


CB 101-102. FUNCTIONAL ENGLISH (3,3)
Instruction and practice in the skills of writing, reading, and listening. CB 101 is prerequisite to CB 102.

CB 103-104. BEHAVIORAL SCIENCE (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.

CB 105-106. PROBLEMS IN BIOLOGICAL SCIENCE (3,3)
The use of information and principles from botany, zoology and physiology to teach students the basic operations of biological systems and the application of critical thinking to scientific problems.

CB 107-108. EXPLORATIONS IN PHYSICAL SCIENCE (3,3)
The development of great ideas of science, in their historical setting, with consideration of their significance in contemporary life. Topics selected from astronomy, chemistry, geology, physics, and philosophy of science. lec-lab. and discussion.

CB 109-110. FUNCTIONAL MATHEMATICS (3,3)
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.
CB 111-122, CB 211-220. FUNCTIONAL FOREIGN LANGUAGES (3 each)

FIRST YEAR (I)                      SECOND YEAR (II)
CB 111-112   FRENCH   CB 211-212
CB 113-114   GERMAN   CB 213-214
CB 115-116   RUSSIAN  CB 215-216
CB 117-118   SPANISH  CB 217-218
CB 119-120   ITALIAN  CB 219-220
CB 121-122   PORTUGUESE

CB 111 to 122 FUNCTIONAL FOREIGN LANGUAGES I (3 each) initiate development of speaking, understanding, reading, and writing of the foreign language at the elementary level together with a study of the foreign culture.

CB 211 to 220 FUNCTIONAL FOREIGN LANGUAGES II (3 each) continue development of language skills at the intermediate level, including grammatical framework of the language and a comprehensive study of the foreign culture.

CB 201-202. THE AMERICAN IDEA (3,3)
Uses history, political science, sociology and economics to focus on major ideas characterizing American society and on our relations with other nations and international problems of today.

CB 203-204. THE HUMANITIES (3,3)
PR: CB 101-102. Analysis of works of visual art, music, literature, and philosophy. Interrelationships between arts and literatures and cultural conditions in significant periods. Workshops for creative experience.

CB 283. SELECTED TOPICS IN BASIC STUDIES (3)
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.

CB 301-302. 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.

CB 303-304. THE SCIENCE OF BEHAVIOR (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.

CB 305-306. SCIENCE AND HUMAN LIFE (3,3)
PR: CB 106, 108 or CI. An investigation of the nature of science and its impact on the world.

CB 307-308. HUMANITIES AND HUMANE VALUES (3)
PR: CB 203-204 or CI. Masterpieces of music, visual arts, literature, and philosophy in varying cultural and historical situations.

CB 395. OVERSEAS STUDY (1-6)
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.
CB 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.

CB 471. COOPERATIVE EDUCATION RESEARCH REPORT (1-4)
PR: CE 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. (See page 26.)

CB 483. SELECTED TOPICS IN BASIC STUDIES (3)
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.

BOTANY AND BACTERIOLOGY
Faculty: Norstog, chairman; Betz, Dawes, Lakela, R. Long.

BO 202. PLANT KINGDOM (4)
PR: BZ 201. The plant divisions, their morphology, physiology and interrelationships, with emphasis upon evolutionary development. lec-lab.

BO 311. SYSTEMATIC BOTANY (4)
PR: BZ 201 or CI. Identification and classification of the more interesting vascular plants of Florida; angiosperm evolution; principles of taxonomy. Conducted largely in the field.

BO 417. MYCOLOGY (4)
PR: BO 202. Taxonomy, morphology, and physiology of fungi with special emphasis on yeasts and molds; antibiosis; industrial fermentations. lec-lab.

BO 419. PLANT ANATOMY (4)
PR: BO 202. Comparative studies of tissue and organ systems of fossil and present-day vascular plants. Functional and phylogenetic aspects stressed. lec-lab.

BO 421. PLANT PHYSIOLOGY† (4)
PR: BO 202, CH 331-332 or 303. Fundamental activities of plants; absorption, translocation, transpiration, metabolism, growth, and related phenomena. lec-lab.

BO 443. MARINE BOTANY (4)
PR: BO 202 or CI. An introduction to the ecology, physiology, morphology, and taxonomy of marine plant life. Recommended to students interested in marine biology and oceanography. Field work is stressed. lec-lab.

BO 445. PLANT ECOLOGY (3)
PR: BO 202 or 411. Distribution and nature of vegetation in relation to climatic, physiographic, edaphic, and biotic factors; field investigations of subtropical Florida plant communities. lec-lab.

BO 481. UNDERGRADUATE RESEARCH (1-3)
PR: Senior standing and CI. Individual investigations with faculty supervision.

BO 491. SEMINAR IN BOTANY (1)
PR: Senior or advanced junior standing and CI. May be repeated once.

† The purchase of a coupon book to cover breakage is required for courses marked with the † symbol.
FOR SENIOR LEVEL AND GRADUATE STUDENTS

BO 543. PHYCOLOGY (4)
PR: BO 443 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.

BO 551. BACTERIAL PHYSIOLOGY† (4)
PR: BZ 451 or equivalent, CH 331-332, or CI. Bacterial structure, growth, death, metabolism, and genetic systems. Laboratory emphasis on quantitative and chemical methods for study of bacteria. lec-lab.

BO 553. DETERMINATIVE BACTERIOLOGY† (4)
PR: BZ 451 or equivalent, CH 331-332 or equivalent. Survey of bacterial classification; detailed examination of bacteria important to man in agriculture, in industry, and as pathogens. lec-lab.

BO 557. VIROLOGY† (4)
PR: BZ 451 or equivalent and CI. The biology of viruses associated with plants, animals, and bacteria will be considered; the nature of viruses, mechanisms of viral pathogenesis, and interactions with host cells. lec-lab.

BO 583. SELECTED TOPICS IN BOTANY AND BACTERIOLOGY (1-3)
PR: CI. Each topic is a course in directed study under supervision of a faculty member.

FOR GRADUATE STUDENTS ONLY

BO 611. ADVANCED PLANT SYSTEMATICS (4)
PR: BO 411 or equivalent. Phylogeny of angiosperm plants, relationships of the principal orders and families; application of cytology, ecology, genetics, bio-chemistry, and morphological analyses to the study of evolution in species of higher plants. lec-lab.

BO 615. ULTRASTRUCTURE TECHNIQUES IN ELECTRON MICROSCOPY† (4)
PR: BO 202 or ZO 202, BZ 315 or equivalent, and CI. Discussion of classical problems in cytology and the attempts at their solution using the electron microscope. Emphasis on preparation techniques, optics, and use of the electron microscope. lec-lab.

BO 621. DEVELOPMENTAL BOTANY AND TISSUE CULTURE† (4)
PR: BO 421 and CI. Morphogenesis and embryogenesis of higher plants. Emphasis on experimental approach to investigations of plant development. Tissue culture techniques stressed. lec-lab.

BO 655. IMMUNOLOGY† (4)
PR: BZ 451 or equivalent, CH 331-332 or equivalent. Discussion of the basic immune reaction, nature of antigenicity; basic immunological techniques and their use in biological research and the medical sciences.

BO 681. GRADUATE RESEARCH (1-3)
PR: CI.

BO 683. SELECTED TOPICS IN BOTANY AND IN BACTERIOLOGY (1-3)
PR: CI.

BO 691. GRADUATE SEMINAR (1)

BO 699. MASTER'S THESIS (3-6)
PR: CI.

† The purchase of a coupon book to cover breakage is required for courses marked with the † symbol.
INTERDISCIPLINARY BOTANY-ZOOLOGY

Faculty: Betz, Briggs, Dawes, Friedl, Gratzner, Krivanek, Lawrence, Linton, Long, Meyerriecks, Norstog, Simon, Woolfenden.

BZ 201. FUNDAMENTALS OF BIOLOGY† (4)
PR: Proficiency tests in mathematics and science. Emphasis on fundamental properties of plant and animal life. lec-lab.

BZ 331. GENETICS (4)

BZ 351. INTRODUCTION TO MICROBIOLOGY† (4)
PR: BZ 201. Introduction to the biology of microorganisms; structure and physiology of bacteria, algae, viruses, rickettsiae and protozoa; basic lab; methods in bacteriology. lec-lab.

BZ 415. CYTOLOGY AND MICROTECHNIQUE† (4)
PR: BO 202 or ZO 202. Structure and function of cytoplasmic and nuclear components of cells; fixation, imbedding, sectioning and staining techniques. lec-lab.

BZ 445. PRINCIPLES OF ECOLOGY (3)

BZ 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.

BZ 486. RESEARCH METHODS IN BIOLOGY II (2)
PR: CI. See BZ 485.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

BZ 565. ORGANIC EVOLUTION (3)
PR: BZ 331 or CI. An introduction to modern evolutionary theory. Lectures on population genetics, adaptations, speciation theory, phylogeny, human evolution, and related areas.

CHEMISTRY

Faculty: Maybury, chairman; Ashford, Binford, J. Davis, J. Fernandez, D. Martin, Monley, Olsen, T. Owen, Solomons, Wenzinger, Whitaker.

CH 211. GENERAL CHEMISTRY† (4)
PR: Proficiency in mathematics and science. Fundamentals of chemistry; gas laws, mass and energy relationships in chemical changes, chemical equilibrium, atomic and molecular structure. lec-lab and discussion.

CH 212. GENERAL CHEMISTRY† (4)
PR: CH 211 or equivalent, second half of General Chemistry. lec-lab and discussion.

CH 213. GENERAL AND QUANTITATIVE CHEMISTRY† (5)
PR: Satisfactory completion of one year of high school chemistry; permission of the department chairman. This special course sequence is designed for the well prepared student who may take it in place of the regular CH 211-212-321 sequence. The usual topics of general chemistry and quantitative analysis are covered in the lecture. The laboratory is taught at the level of precision expected in quantitative analysis. 3 hours-lecture; 3 hours-lab; 1 hour-discussion.

† The purchase of a coupon book to cover breakage is required for courses marked with the † symbol.
CH 214. GENERAL AND QUANTITATIVE CHEMISTRY† (5)
PR: CH 213. The second half of General and Quantitative Chemistry. 3 hours-lecture; 6 hours-lab.

CH 301. CHEMICAL STOICHIOMETRY (3)
PR: CH 212 or equivalent. Course on the mutual relationship of chemical principles and mathematical operations. One-trimester course for non-chemistry majors. Lecture.

CH 303. ORGANIC CHEMISTRY† (4)
PR: CH 212. Fundamental organic chemistry principles. One-trimester course for non-chemistry majors. lec-lab.

CH 305. PHYSICAL CHEMISTRY (4)
PR: CH 212, 321. Fundamental physical chemistry principles. One-trimester course for non-chemistry majors. lec-lab.

CH 321. QUANTITATIVE ANALYSIS† (5)
PR: CH 212. Laboratory procedures and theoretical consideration of factors pertinent to quantitative determinations. lec-lab.

CH 331. ORGANIC CHEMISTRY† (4)
PR: CH 212. Fundamental principles of organic chemistry. lec-lab and discussion.

CH 332. ORGANIC CHEMISTRY† (4)
PR: CH 331 or equivalent. Second half of Organic Chemistry. lec-lab and discussion.

CH 431. ADVANCED ORGANIC SYNTHESIS (3)
PR: CH 332. A study of synthetic organic techniques from both the practical and the theoretical points of view. lec-lab.

CH 433. QUALITATIVE ORGANIC ANALYSIS† (3)
PR: CH 332. Identification of organic compounds by functional group reactions and physical properties. lec-lab.

CH 441. PHYSICAL CHEMISTRY (3)

CH 442. PHYSICAL CHEMISTRY (3)

CH 443. PHYSICAL CHEMISTRY (3)
PR: CH 441, 442. Introduction to statistical thermodynamics; introduction to quantum mechanics. Lecture.

CH 444. PHYSICAL CHEMISTRY LABORATORY† (2)
PR: One term of physical chemistry. CR: The second term of physical chemistry. 6 hours of lab weekly.

CH 473. CHEMICAL LITERATURE (1)
PR: 18 hours of chemistry, junior standing. Principles of the literature search-major source materials in analytical, biochemistry, inorganic, physical, and organic chemistry. Lecture.

CH 481. UNDERGRADUATE RESEARCH (1-3)
PR: CI.

† The purchase of a coupon book to cover breakage is required for courses marked with the † symbol.
CH 491. CHEMISTRY SEMINAR (1)
PR: Senior standing.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

CH 511. ADVANCED INORGANIC CHEMISTRY (3)
PR: CH 441, 442. An advanced theoretical treatment of inorganic compounds. Lecture.

CH 521. INSTRUMENTAL ANALYSIS† (3)
PR: CH 321, one trimester of physical chemistry. Theory and practice of instrumental methods. lec-lab.

CH 551. BIOCHEMISTRY† (4)
PR: CH 303 or 332. The chemistry and intermediary metabolism of biologically important substances, including carbohydrates, proteins, enzymes, vitamins, and metabolic intermediates. lec-lab.

CH 583. SELECTED TOPICS IN CHEMISTRY (1-3)
PR: CH 441, 442. Each topic is a course in directed study under the supervision of a faculty member expert in the field.

FOR GRADUATE STUDENTS ONLY

CH 611. STRUCTURAL INORGANIC CHEMISTRY (3)
PR: CH 511. Modern theories of bonding and structure of inorganic compounds, including coordination theory, stereochemistry, solution equilibria, kinetics, mechanisms of reactions, and use of physical and chemical methods. Lecture.

CH 613. CHEMISTRY OF THE LESS FAMILIAR ELEMENTS (3)
PR: CH 511. An integrated treatment of the conceptual and factual aspects of the traditionally less familiar elements, including noble-gas elements, unfamiliar nonmetals, alkali and alkaline-earth metals, and the transition elements. Lecture.

CH 621. ADVANCED ANALYTICAL CHEMISTRY (3)
PR: CI. A study of complete analytical process, including sample handling, separations, the analysis step, and statistical interpretation of data. Emphasis placed on separations and statistics. Lecture.

CH 623. ELECTROCHEMISTRY (3)
PR: CH 521. Theory and applications of modern electrochemical techniques, including polarography, amperometry, potentiometry, coulometry, and conductometry. Lecture.

CH 625. ADVANCED ANALYTICAL TOPICS (3)
PR: CI. Selected topics in analytical chemistry. Offerings include radio-chemistry (emphasizing radiotracers in research and analysis), chemical spectroscopy, (including both emission and absorption), and quantitative organic analysis. Lecture. Some topics may have lab.

CH 631. STRUCTURAL ORGANIC CHEMISTRY (3)
A survey of theoretical and synthetic organic chemistry with an emphasis on stereochemistry. Problems of structure and reactivity will be considered. Lecture.

CH 633. ORGANIC REACTION MECHANISMS (3)
A study of organic reaction mechanisms emphasizing the interpretation of experimental data. Lecture.

CH 635. ORGANIC REACTIONS (3)
A study of organic reactions as exemplified in synthesis, degradation and structure proof. The emphasis will vary from year to year. Lecture.

† The purchase of a coupon book to cover breakage is required for courses marked with the † symbol.
CH 641. STATISTICAL THERMODYNAMICS (3)
Application of statistical mechanics to thermodynamics, the relation of molecular structure to thermodynamic properties. Lecture.

CH 643. MOLECULAR SPECTROSCOPY (3)
Application of elementary quantum mechanics to the analysis and interpretation of molecular and magnetic resonance spectra. Lecture.

CH 645. QUANTUM CHEMISTRY (3)
Applications and development of wave mechanics to problems in chemistry; valence and the chemical bond. Lecture.

CH 681. GRADUATE RESEARCH (1-6)
PR: CI. Directed study along lines of the student's research, including participation in regular seminars. May be repeated.

CH 683. SELECTED TOPICS IN CHEMISTRY (1-3)

CH 691. GRADUATE SEMINAR IN CHEMISTRY (1)

CH 699. THESIS (1-6)

COOPERATIVE EDUCATION

Coordinating Staff: G. Miller, director; Stubblebine.

CE 171. COOPERATIVE EDUCATION, 1ST TRAINING PERIOD (0)
PR: 24 hours of academic credit, acceptance in Cooperative Education Program.

CE 172. COOPERATIVE EDUCATION, 2ND TRAINING PERIOD (0)
PR: CE 171.

CE 271. COOPERATIVE EDUCATION, 3RD TRAINING PERIOD (0)
PR: CE 172.

CE 272. COOPERATIVE EDUCATION, 4TH TRAINING PERIOD (0)
PR: CE 271.

CE 371. COOPERATIVE EDUCATION, 5TH TRAINING PERIOD (0)
PR: CE 272.

CE 372. COOPERATIVE EDUCATION, 6TH TRAINING PERIOD (0)
PR: CE 371.

CE 471. COOPERATIVE EDUCATION, 7TH TRAINING PERIOD (0)
PR: CE 372.

CE 472. COOPERATIVE EDUCATION, 8TH TRAINING PERIOD (0)
PR: CE 471.

CE 671. COOPERATIVE EDUCATION, TRAINING PERIOD (0)

DEVELOPMENTAL MATHEMATICS

DM 001. BASIC CONCEPTS OF ALGEBRA (0)
A programmed learning course in algebra from a modern point of view for the convenience of persons without adequate knowledge of simple algebraic manipulations and for persons without adequate preparation for MA 101.
DM 002. ANALYTICAL TRIGONOMETRY (0)
A programmed learning course in the study of the trigonometric functions as functions of real numbers and their application to triangles.

DEVELOPMENTAL READING

DR 001. DEVELOPMENTAL READING (0)
Instruction involving extensive practice in word attack, comprehension, and in different ways and purposes of reading. Various mechanical aids are used. Some sections, so designated at registration time, give major emphasis to speed and accuracy.

ECONOMICS

Faculty: R. Neel, chairman; Brunhild, R. H. Burton, Cloninger, Deiter, Herman, Mellish, Modrow, Pasternak, West.

EC 201. ECONOMIC PRINCIPLES I (3)
Economics as a social science; operation of the market system; introduction to labor history and unions; and the theory of income distribution.

EC 202. ECONOMIC PRINCIPLES II (3)
Accounting, analytical and policy aspects of national income with emphasis on the theory of income determination; analysis of money and banking system; and survey of international trade theory and policies.

EC 301. INTERMEDIATE PRICE THEORY (3)
PR: EC 201-202. Advanced analysis of supply and demand as related to competition and monopoly; application of economic theory to management policies.

EC 311. LABOR ECONOMICS (3)
PR: EC 201-202 or CI. History of the trade union movement; economic analysis of trade union philosophies and practices; examination of basic influences affecting labor force, real wages and employment; collective bargaining and labor law.

EC 313. COLLECTIVE BARGAINING (3)
PR: EC 311. The administration of labor-management arguments, mediation and arbitration of industrial disputes and governmental role in collective bargaining.

EC 323. INTERMEDIATE INCOME AND MONETARY ANALYSIS (3)
PR: EC 201-202. Advanced analysis of national income and monetary theory with emphasis on the modern theory of income determination and the functioning of the monetary system.

EC 331. BUSINESS AND ECONOMIC STATISTICS I (3)
PR: CB 109-110. The collection, presentation, analysis and interpretation of quantitative data as they pertain to economic and business problems.

EC 341. ECONOMICS OF TRANSPORTATION (3)
PR: EC 201-202. Functions of transportation agencies, rate structure of transportation companies, problems of state and federal regulations and coordination of transportation facilities.

EC 343. ECONOMICS OF PUBLIC UTILITIES (3)
EC 351. INTERNATIONAL ECONOMICS (3)
PR: EC 201-202. The principles and mechanisms of trade, exchange, balance of payments, comparative costs, effects of trade restrictions and economic growth of underdeveloped areas.

EC 361. INTRODUCTION TO MATHEMATICAL ECONOMICS (3)
PR: CB 109-110, EC 201-202 and 331. The principal mathematical tools and techniques used in economic analysis and economic research.

EC 371. AMERICAN ECONOMIC HISTORY (3)
PR: EC 201-202. The growth and evolution of American economic institutions from Colonial times to the present.

EC 401. HISTORY OF ECONOMIC THOUGHT (3)
PR: EC 201-202. A historical survey of the development of economic theory and the main streams of economic thought, including philosophical and value aspects of economic thought.

EC 405. COMPARATIVE ECONOMIC SYSTEMS (3)
PR: EC 201-202. An emphasis on the theoretical and practical differences between economic systems such as capitalism, socialism, and communism.

EC 411. LABOR RELATIONS AND PUBLIC POLICY (3)
PR: EC 311. Problems resulting from legislative and judicial interpretation of the rights, duties and responsibilities of labor unions and employers; public policy in labor-management negotiations; survey of legislation designed to protect workers.

EC 423. PUBLIC FINANCE (3)

EC 431. BUSINESS AND ECONOMIC STATISTICS II (3)
PR: EC 331. Basic probability distributions, theory of statistical estimation, tests of hypotheses, design of experiments. Introduction to non-parametric statistics.

EC 437. BUSINESS-GOVERNMENT RELATIONSHIPS (3)
PR: EC 201-202. Patterns of regulations such as control of competitive enterprise, cartels and monopolies by the government. Government regulations and economic planning applied to politically determined economic goals.

EC 451. INTERNATIONAL COMMERCIAL POLICIES (3)
PR: EC 351. Geographic, social, political and related factors influencing commercial trade policies. Special emphasis on economic consequences of alternative courses of action.

EC 461. THEORY OF ECONOMIC DEVELOPMENT (3)
PR: EC 323. Problems, dynamics, and policies of economic change and growth in both emerging and developed countries. Emphasis is placed on economic theory as an explanation of the process of economic development.

EC 479. SEMINAR IN INTERNATIONAL ECONOMICS (3)
PR: EC 451. Patterns of economic relationships among countries, with particular emphasis on Latin America.

FOR GRADUATE STUDENTS ONLY

EC 601. RESEARCH METHODOLOGY (3)
An investigation and use of research concepts, objectives, and methods. This course should be taken at an early stage of the program.
EC 603. MANAGERIAL STATISTICS (3)
A systematic development of statistical methods with reference to their application in economic and business decision-making. This course should be taken at an early stage of the program.

EC 605. MANAGERIAL ECONOMICS (3)
The application of the concepts, tools, and methods of micro economic analysis to the solution of problems of the business firm.

EC 607. AGGREGATE ECONOMICS (3)
An analysis of economic trends and fluctuations, of monetary and fiscal policy designed to moderate economic fluctuations, and the forecasting of their impact upon the business firm.

EDUCATION


Professional Education

Required Undergraduate Core (12 hours)

ED 305. HUMAN DEVELOPMENT AND LEARNING (3)
PR: CB 103-104. Physiological and psychological growth patterns; learning theories, personality adjustment, and appraisal of the various forces affecting learning and personality.

ED 307. SOCIAL FOUNDATIONS OF EDUCATION (3)
The social, economic and political context within which schools function and the values which provide direction for our schools; the culture as a motivating influence in instruction.

ED 401. CURRICULUM AND INSTRUCTION (3)
PR: ED 305 and 307, and admission to a teacher education program. Structure and purposes of curriculum organization with special emphasis on the quality of curriculum.

ED 440. TEACHING METHODS IN THE ELEMENTARY SCHOOL (3)
Process of teaching elementary school subjects. To be taken trimester prior to internship.

ED 441-465. TEACHING METHODS IN THE SECONDARY SCHOOL (3)
PR: ED 401 or concurrent registration in ED 401. Techniques and materials of instruction in one of the following secondary school subjects of the teaching specialization.

441. ART
443. BUSINESS EDUCATION
445. DISTRIBUTIVE EDUCATION
447. ENGLISH
449. FOREIGN LANGUAGE
451. MATHEMATICS
453. MUSIC-INSTRUMENTAL (K-12)
455. MUSIC-VOCAL (K-12)
457. PHYSICAL EDUCATION
459. SCIENCES
461. SOCIAL STUDIES
463. JOURNALISM
465. LATIN
ED 498. SENIOR SEMINAR IN EDUCATION (3)
PR: Senior standing. Synthesis of teacher candidate's courses in his complete college program. Required concurrently with student teaching.

ED 499. SUPERVISED TEACHING (9)
One full trimester of student teaching in a public or private school. Student teacher takes Senior Seminar in Education concurrently.

Undergraduate Electives
ED 101. INTRODUCTION TO TEACHING (3)
The people with whom teachers work, the types of tasks they perform and the challenges they can anticipate. Observation of teaching at several grade levels.

ED 303. INTRODUCTION TO MEASUREMENT AND EVALUATION (3)
Elementary concepts basic to a general understanding of measurement and evaluation procedures.

ED 377. EDUCATIONAL PSYCHOLOGY (3)
The nature of learning and the application of learning principles to educational procedures.

ED 425. NEW TRENDS IN TEACHING THE PHYSICAL SCIENCES (3)
Physical Science Study Committee Physics, Chemical Education Materials Study and other new approaches to the teaching of the physical sciences. Directed individual study. Recommended to be taken prior to ED 459.

ED 427. NEW TRENDS IN TEACHING BIOLOGY (3)
Cellular version of Biological Science Curriculum Study. For secondary school teachers. Recommended to be taken prior to ED 459.

ED 480. INDIVIDUAL RESEARCH (1-3)
PR: Senior standing and consent of program coordinator.

ED 481. DIRECTED STUDY: (Subject) (3)
Individually planned course in elementary or secondary school subject.

ED 486. DIRECTED READINGS (1-3)
PR: Senior standing and consent of program coordinator.

FOR SENIOR LEVEL AND GRADUATE STUDENTS
ED 502. CURRICULUM AND INSTRUCTION:
(ELEMENTARY OR SECONDARY) (3)
Curriculum scope, sequence, and interrelationships with emphasis on a critical evaluation of current trends.

ED 567. READING IN THE SECONDARY SCHOOL (3)
Departmental reading for the upper grade level junior high school pupils and all grade level senior high school pupils.

ED 575. AMERICAN DEMOCRACY AND PUBLIC EDUCATION (3)
Interdependence of the public school and democracy in the United States and the responsibility of the school in fostering and strengthening basic democratic principles.

ED 585. PROGRAMMED INSTRUCTION AND TEACHING MACHINES (3)
Principles for programming in the several academic subjects.
FOR GRADUATE STUDENTS ONLY

ED 601. FOUNDATIONS OF EDUCATIONAL RESEARCH (3)
Major types of educational research, with emphasis upon understanding the experimental method.

ED 603. STATISTICS FOR EDUCATIONAL RESEARCH (3)
PR: ED 601 or course in elementary statistics. Inferential statistical techniques applied to the experimental study of educational problems.

ED 605. FOUNDATIONS OF MEASUREMENT (3)
Fundamental descriptive statistics, basic measurement concepts, role of measurement in education, construction of teacher-made tests and interpretation of standardized tests.

ED 611. PSYCHOLOGICAL FOUNDATIONS OF EDUCATION (3)
Selected topics in psychology of human development and learning.

ED 613. PRINCIPLES OF LEARNING (3)
Research studies selected on basis of relevance to classroom situations.

ED 617. MEASUREMENT OF INDIVIDUAL INTELLIGENCE (3)
PR: ED 305 or 611 or equivalent and a course in educational measurement or statistics. Administration and interpretation of individual measures of intelligence.

ED 621. SOCIO-ECONOMIC FOUNDATIONS OF AMERICAN EDUCATION (3)
Significant socio-economic factors as they relate to major problems facing American education.

ED 623. HISTORICAL FOUNDATIONS OF AMERICAN EDUCATION (3)
Historical and comparative problems in American education which are relevant to contemporary issues.

ED 625. PHILOSOPHICAL FOUNDATIONS OF AMERICAN EDUCATION (3)
Major philosophies of education which are relevant to an understanding of contemporary educational issues.

ED 631. CURRENT TRENDS IN SECONDARY ENGLISH EDUCATION (3)
Curricular patterns and instructional practices in secondary English.

ED 637. CURRENT TRENDS IN SECONDARY MATHEMATICS EDUCATION (3)
Curricular patterns and instructional practices in secondary mathematics.

ED 639. CURRENT TRENDS IN SECONDARY SCIENCE EDUCATION (3)
PR: ED 425 or 427. Curricular patterns and instructional practices in secondary science.

ED 641. CASE STUDIES IN SCIENCE (3)
Case studies from the Natural Sciences with implications for science teaching.

ED 643. CURRENT TRENDS IN SECONDARY SOCIAL STUDIES (3)
Curricular patterns and instructional practices in secondary social studies.

ED 651. THE JUNIOR COLLEGE IN AMERICAN HIGHER EDUCATION (3)
History of higher education, philosophical and cultural bases for definition of its role, and contemporary issues, such as control, financing, and curricular patterns. The place and problems of the community junior college will be central concerns of this course.
ED 653. SEMINAR IN COLLEGE TEACHING (3)
Implications of learning theory and student characteristics for teaching at the college level. Each student will serve as an instructional assistant in his academic area and will present a paper on selection and organization of content, teaching techniques, and evaluation procedures appropriate thereto.

ED 661. PRINCIPLES OF EDUCATIONAL SUPERVISION (3)
PR: Course in general curriculum. Instructional leadership, relation of supervision and curriculum improvement, evaluation of teaching and supervision, organization of supervisory program.

ED 671. PRINCIPLES OF EDUCATIONAL ADMINISTRATION (3)
Educational administration as a profession. Consideration is given to organization, control, and support of the educational system.

ED 681. DIRECTED STUDY: (Subject) (3)
Extension of competency in teaching field.

ED 685. SCHOOL CURRICULUM IMPROVEMENT (3)
Workshop for the improvement of the curriculum of an elementary or secondary school. Open only to teachers in service. Complete faculty participation required.

ED 687. SUBJECT SPECIALIZATION PLANNING: ELEMENTARY (3)
Individually planned course in an elementary school subject area for in-service teachers.

ED 689. SUBJECT SPECIALIZATION PLANNING: SECONDARY (3)
Individually planned course in a secondary school subject area for in-service teachers.

ED 691. INTERNSHIP (3-6)
PR: CI. Supervised teaching at the secondary or junior college level as appropriate.

ED 699. THESIS (3-6)

Art Education

AE 379. ART IN THE ELEMENTARY SCHOOL (3)
PR: AR 308. Art expressions appropriate for elementary school pupils at each grade level.

AE 498. FIELD WORK IN ART EDUCATION- (Credits to be announced)
PR: CI. Supervised participation in activities related to art education in community centers, adult education programs, non-school youth programs, planned workshops and research. Undergraduate students will enroll in AE 498 for two credit hours concurrently with ED 499.

FOR GRADUATE STUDENTS ONLY

AE 680. HISTORICAL AND PHILOSOPHICAL FOUNDATIONS OF ART EDUCATION (3)
Past and contemporary philosophies and practices in art education.

AE 681. ADMINISTRATION AND SUPERVISION OF ART EDUCATION (3)
Principles of administration and supervision.

AE 682. RESEARCH SEMINAR IN ART PROGRAM (3)
PR: AE 680 or CI. Literature and research in art education. Various approaches to problem solving and evaluation with emphasis on individual research.
Distributive Education

DE 311. RETAILING EDUCATION (3)
The retail functions and related content needed to develop a training plan for careers in such areas as advertising, salesmanship, or merchandising.

DE 406. MANAGEMENT OF COORDINATED VOCATIONAL PROGRAMS (3)
Organization and coordination of cooperative and specialized programs.

DE 431. SUPERVISED FIELD EXPERIENCE (3)
PR: DE 311. Planned supervised participation in activities related to training procedures in retail, wholesale, and service occupations in selected industries.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

DE 506. MANAGEMENT OF VOCATIONAL EDUCATION PROGRAMS (3)
Organization and coordination of cooperative and specialized programs.

DE 507. PRINCIPLES OF VOCATIONAL EDUCATION (3)
The development of vocational programs and the basis for occupational emphasis to other aspects of education.

FOR GRADUATE STUDENTS ONLY

DE 607. PRINCIPLES OF VOCATIONAL EDUCATION (3)
Development of vocational programs and an examination of their relationship to other curricular areas.

DE 621. IMPROVING COORDINATION INSTRUCTION (3)
PR: In-service experience or CI. An examination of the cooperating agencies and their functions; materials, methods and content of junior college mid-management programs.

DE 631. ORGANIZATION AND SUPERVISION OF ADULT DISTRIBUTIVE EDUCATION (3)
PR: CI. For supervisors of adult distributive education in county-wide programs and community junior colleges. Curriculum structure, advisory committees, teacher recruitment and training, including the construction of course outlines and promotion of enrollment.

DE 651. DISTRIBUTIVE EDUCATION PRACTICUM: (Area) (3-6)
PR: CI. Field work in the local business community.

DE 661. SEMINAR IN DISTRIBUTIVE EDUCATION RESEARCH (3)
PR: ED 601. Applied research techniques and investigation of an important current problem in distributive education.

Elementary Education

EE 409. READING FOR THE CHILD (3)
PR: CB 101-102 and ED 305. Readiness, word recognition (phonic, visual and contextual analysis) development of word meanings, basic study skills, comprehension abilities and reading interests.

EE 411. LANGUAGE ARTS FOR THE CHILD (3)
PR: CB 101-102 and ED 305. Speaking, writing, reading and listening experiences of children and ways these skills are developed for individual creative expression.
EE 413. LITERATURE FOR THE CHILD (3)
PR: CB 101-102 and ED 305. History and development of children's literature, study of bibliographic sources, criteria and techniques for selection and use.

EE 415. ARITHMETIC FOR THE CHILD (3)
PR: CB 109-110. Basic structure of arithmetic, principles underlying number concepts.

EE 417. SCIENCE FOR THE CHILD (3)
PR: CB 105-106 or 107-108. Science as inquiry.

EE 419. SOCIAL STUDIES FOR THE CHILD (3)
PR: CB 201-202. Significant concepts in the subjects concerned with human relationships. Emphasis upon teaching pupils to solve rather than be engulfed by social problems.

EE 421. ART FOR THE CHILD (3)
PR: CB 203-204. Art and the intellectual, creative, emotional, and esthetic growth of children.

EE 423. MUSIC FOR THE CHILD (3)
PR: CB 203-204. Music fundamentals and music literature.

EE 425. HEALTH, PHYSICAL EDUCATION FOR THE CHILD (3)
Motivating factors of play; knowledge and skill in basic rhythmic activities; games and stunts; health instruction for the child.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

EE 527. DEVELOPMENTAL PROCESSES IN EARLY CHILDHOOD (5)
Developmental processes among nursery-kindergarten children, their relation to curriculum development and learning; extensive child study through observation required.

EE 529-530. PROGRAMS IN NURSERY SCHOOLS AND KINDERGARTENS (3,3)
Evaluation of curriculum as it contributes to the development of individual and group living in nursery schools, day care centers and kindergartens. (429: Esthetic concepts; 430: Environmental concepts.)

EE 531. LANGUAGE AND COGNITION IN EARLY CHILDHOOD (3)
Language in the learning, thinking and perceiving of young children; contrasting theories of language and symbolic experience, verbal and non-verbal behavior.

FOR GRADUATE STUDENTS ONLY

EE 603. CURRICULUM RESEARCH (1-3)
PR: ED 601 and admission to candidacy. Critical evaluation of current research and curriculum literature, design and analysis of individual research topics leading to satisfaction of research requirement.

EE 609. NEW TRENDS IN READING INSTRUCTION (3)
PR: ED 409 or teaching experience. Extensive study of recent trends in materials, approaches and procedures in teaching reading in the elementary school.

EE 611. NEW TRENDS IN LANGUAGE ARTS INSTRUCTION (3)
PR: ED 411 and 413. Advanced materials and processes of instruction in elementary school language arts programs.
EE 613. CREATIVE ARTS INSTRUCTION (3)
Creative processes in the teaching of painting, music, dance, and drama to elementary school pupils.

EE 615. NEW TRENDS IN MATHEMATICS INSTRUCTION (3)
PR: ED 415 or equivalent. Philosophy, content and process of qualitative instruction in modern mathematics in elementary school programs.

EE 617. NEW TRENDS IN SCIENCE INSTRUCTION (3)
PR: ED 417. Topics in the biological and physical sciences appropriate for teaching in excellent elementary school programs. Analysis of modern curriculum materials used in presenting science as a process of inquiry.

EE 619. NEW TRENDS IN SOCIAL STUDIES INSTRUCTION (3)
Crucial concepts drawn from the social sciences. Analysis of the problems approach. Students will select an area of independent study on an advanced level.

EE 621. ART FOR THE ELEMENTARY SCHOOL TEACHER (3)
Exploration of various materials and techniques in relationship to current theories about art and the intellectual, creative, emotional and esthetic growth of children.

EE 631. DIAGNOSIS OF READING DISABILITIES (3)
PR: EE 609. Research concerning causes of reading disability; diagnostic procedures; techniques and materials in diagnosis of reading problems.

EE 632. TECHNIQUES OF CORRECTIVE AND REMEDIAL READING (3)
PR: EE 609 and 631. Materials and methods in remediation of moderate to severe reading disability cases.

EE 633. PRACTICUM IN READING (3)
PR: EE 609 or ED 567, EE 631 and 632. Clinical diagnosis of severe reading disability cases, tutoring of individuals and small groups, interview techniques, preparation of case reports.

EE 634. CURRICULUM AND SUPERVISORY PROBLEMS IN READING (3)
PR: EE 609 or ED 567, EE 631 and 632. Planning and administering programs and preparation as consultants in reading. Intensive work on individual projects required.

EE 641. PROBLEMS IN SUPERVISION (3)
PR: ED 601 or equivalent and ED 661. Problems in supervising for curriculum improvement within the elementary school.

Guidance

FOR SENIOR LEVEL AND GRADUATE STUDENTS

GU 581. PRINCIPLES OF GUIDANCE (3)
Guidance as a profession; philosophic framework of the guidance program, its scope and place in the total educational context.

FOR GRADUATE STUDENTS ONLY

GU 603. THE INFORMATIONAL SERVICE IN GUIDANCE (3)
PR: GU 581. Occupational structure in the United States; sources and uses of educational, occupational, social, and personal information; collecting, classifying and communicating such information.
GU 607. THE INDIVIDUAL INVENTORY SERVICE IN GUIDANCE (2-3)
PR: GU 581. Case study approach to the analysis of the individual with emphasis on collecting and using information for purposes of better understanding individuals.

GU 611. THE TESTING SERVICE IN GUIDANCE (3)
PR: ED 303 or equivalent and GU 581. Measurement in guidance; administration of tests, interpretation and use of results.

GU 615. ORGANIZATION AND ADMINISTRATION OF GUIDANCE SERVICES (2-3)
PR: GU 581. Organization of a guidance program and its place in the total educational program; responsibilities of various staff members and their relationships to each other.

GU 619. GROUP PROCEDURES IN GUIDANCE (3)
PR: GU 581. Group interaction and values of group activity for guidance purposes. Methods and techniques for working with groups.

GU 623. THE COUNSELING SERVICE IN GUIDANCE (3)
PR: GU 581, 611; ED 613, and PC 433. Nature of the counseling process with emphasis on some theoretical approaches and practical techniques.

GU 627. PRACTICUM IN GUIDANCE COUNSELING (3)
PR: GU 623. Supervised practice in working with individuals in counseling relationship.

GU 633. SEMINAR IN GUIDANCE (1-3)
PR or CR: GU 581. Significant issues in the field of guidance; topics for discussion will vary according to needs and interests of students.

Library-Audio Visual Education

LE 411. SCHOOL LIBRARY ADMINISTRATION AND SERVICE (3)
The developments, philosophy, objectives, standards, and current trends in school libraries; library processes, programs and services in the school.

LE 412. THE ORGANIZATION OF THE SCHOOL LIBRARY AS A MATERIALS CENTER (3)

LE 419. AUDIO-VISUAL MATERIALS OF INSTRUCTION (3)
Theory and practice in the operation of multi-sensory aids and equipment.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

LE 513. GENERAL REFERENCE SOURCES (3)
Basic reference tools; dictionaries, handbooks, serials, and bibliographic sources in subject fields; problems and techniques in building and maintaining reference collections in the schools.

LE 515. TECHNICAL SERVICES IN LIBRARIES (3)
Principles and practice in the classification, cataloging, and processing of books and other informational materials in the school library.

LE 517. BOOKS AND RELATED MATERIALS FOR YOUNG PEOPLE (3)
Literature for adolescents; bibliographic sources, aids, and tools for the selection and utilization of books and related multi-sensory materials.
LE 523. PREPARATION AND PRODUCTION OF
INSTRUCTIONAL MATERIALS (3)
Preparation of a variety of instructional materials using various techniques, with special emphasis placed on transparencies, tapes and other materials of the newer media.

FOR GRADUATE STUDENTS ONLY

LE 601. BIBLIOGRAPHY AND BOOK SELECTION (3)

LE 603. HISTORY OF BOOKS AND LIBRARIES (3)
Development of books and libraries from the earliest records to the great libraries of modern times and the library as a social institution.

LE 605. HISTORY OF CHILDREN'S LITERATURE (3)
Historical bibliographical survey of imaginative and informational literature for children.

LE 607. THE CURRICULUM AND INSTRUCTIONAL TECHNOLOGY (3)
Instructional materials as they relate to specific areas of the curriculum in elementary and high school programs.

LE 609. SUPERVISED FIELD WORK IN SCHOOL LIBRARIES (3)
Admission to candidacy and consent of major adviser.

LE 611. ADVANCED SUBJECT REFERENCE AND BIBLIOGRAPHY (3)
PR: LE 513. Literature of the humanities, social sciences, science, and technology.

LE 621. AUDIO-VISUAL ADMINISTRATION (3)
PR: LE 419, 523. Audio-visual administrative practices in public schools, school systems and junior colleges. Organization of audio-visual facilities, services and instruction.

LE 623. ADVANCED PREPARATION AND PRODUCTION OF
INSTRUCTIONAL MATERIALS (3)
PR: LE 523 and 607. Designed for the high school specialist. The preparation of transparencies, film strips, and other newer media of instruction.

LE 625. READING GUIDANCE PROGRAMS
IN LIBRARIES AND CLASSROOMS (3)
Reading interests of youth, programs for teaching the library and learning skills, theory and practice in reading guidance techniques.

LE 681. INDIVIDUAL RESEARCH AND INDEPENDENT STUDY (3)
PR: 20 hours earned in program and consent of adviser.

Music Education

†ME 431. INSTRUMENTAL MUSIC IN THE ELEMENTARY SCHOOL (3)
†ME 432. INSTRUMENTAL MUSIC IN THE JUNIOR HIGH SCHOOL (3)
†ME 433. INSTRUMENTAL MUSIC IN THE SENIOR HIGH SCHOOL (3)
†ME 435. VOCAL MUSIC IN THE ELEMENTARY SCHOOL (3)
†ME 437. VOCAL MUSIC IN THE JUNIOR HIGH SCHOOL (3)
†ME 439. VOCAL MUSIC IN THE SENIOR HIGH SCHOOL (3)

† Each class meets as a performing group. Score reading, conducting, organizational procedures, historical relationships, and methods at the appropriate grade levels. Teaching techniques concerning the presentation of elements of theory, general music, and literature.
FOR GRADUATE STUDENTS ONLY

ME 601. TECHNIQUES OF RESEARCH IN MUSIC EDUCATION (3)
Professional bibliography and individual research projects.

ME 603. MUSIC SUPERVISION AND ADMINISTRATION (2)
The music curriculum in relation to the total school program; staff and budgetary needs.

ME 633. CURRENT TRENDS IN SCHOOL INSTRUMENTAL MUSIC (2)
New materials, equipment, techniques of teaching and recent historical trends in instrumental music.

ME 635. CURRENT TRENDS IN SCHOOL VOCAL MUSIC (2)
New materials, equipment, techniques of teaching and recent historical trends in vocal music.

Physical Education for Teachers
Abbreviations: (C) coeducational; (M) men; (W) women.

EP 203. PRINCIPLES OF PHYSICAL EDUCATION (2)
General principles, procedures, historical development and contemporary theories and practices in physical education. (C)

EP 217. FIRST AID (2)
Meets American Red Cross certification requirements in standard and advanced first aid. (C)

EP 301. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION (3)
Policies, standards and procedures pertaining to facility planning, maintenance, purchase of equipment, class organization, evaluation of pupil progress and general supervisory problems. (C)

EP 321. KINESIOLOGY AND ADAPTED PHYSICAL EDUCATION (3)
PR: ZO 271. Mechanical and anatomical principles of human movement for motor learning and analysis. Adapting physical educational activities to meet the needs and interests of students with special problems. (C)

EP 322. ATHLETIC TRAINING (2)
PR: EP 321. Principles and techniques of conditioning athletes for competition; prevention and care of injuries in physical education and athletic activities. (M)

EP 331. COACHING AND OFFICIATING FOOTBALL AND BASKETBALL (3)
Theory and practice of the fundamental techniques, organizational problems and strategy involved in coaching football and basketball. (M)

EP 332. COACHING AND OFFICIATING BASEBALL AND TRACK (3)
Theory and practice of the fundamental techniques, organizational problems and strategy involved in coaching baseball and track. (M)

EP 333. TEACHING AND OFFICIATING TEAM SPORTS (3)
Skills, strategy and application of rules; methods of teaching and officiating soccer, track and field, speed ball and field hockey. (W)

EP 334. TEACHING AND OFFICIATING TEAM SPORTS (3)
Skills, strategy and application of rules; methods of teaching and officiating basketball, volleyball and softball; the application of practices in physical conditioning. (W)
EP 341. DANCE COMPOSITION (1)
PR: PE 120-166 or CI. Workshop in construction of modern dance compositions. Development of experimental movement of studies based upon dynamic, spacial, rhythmic and dramatic aspects of composition. (C)

EP 342. THEORY AND TEACHING OF MODERN DANCE (2)
PR: PE 120-166 or CI. Designed to acquaint students with methods and resources for use in teaching dance. Practical experience in presentation of dance techniques and composition work to classes. (C)

EP 353. TEACHING AND OFFICIATING SWIMMING (2)
PR: PE 132, 134 or 136. Methods of teaching swimming, diving and life saving. (C)

EP 354. TEACHING FOLK, SOCIAL AND SQUARE DANCE (2)
PR: PE 119. Study and analysis of folk, social and square dances with emphasis on teaching. (C)

EP 357. PHYSICAL EDUCATION ACTIVITIES (2)
PR: 170 and 180. Methods of teaching soccer, speedball, gatorball, volleyball, softball, touch football, wrestling, gymnastics, weight training and special conditioning. (M)

EP 359. PHYSICAL EDUCATION ACTIVITIES (2)
PR: PE 170. Methods of teaching tumbling apparatus and special conditioning. (W)

EP 361. COMMUNITY RECREATION (3)
Introduction to recreational outlets in the community and the administrative problems confronting recreational playground leaders and directors of community recreational programs. (C)

EP 430. SCHOOL HEALTH EDUCATION (3)
Healthful school living, health services and health instruction through direct and incidental teaching. Recommended for elementary education majors.

EP 451. TEACHING INDIVIDUAL AND DUAL ACTIVITIES (2)
PR: PE 150, 152, 160 and 168. Methods of teaching tennis, golf, badminton, bowling, handball, archery and recreational activities. (C)

EP 455. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION (2)
Practical application and study of administrative techniques and data analysis of tests used to evaluate students, activities and programs. (C)

EP 460. HEALTH EDUCATION PROJECT (3)
A practicum in health education through field experiences with official and voluntary health agencies. (C)

Special Education

SE 321. PSYCHOLOGICALLY AND PHYSICALLY EXCEPTIONAL CHILDREN IN THE SCHOOLS (3)
PR: ED 305, PC 201, or CI. Characteristics and educational needs of the exceptional child.

SE 322. INTRODUCTION TO MENTAL RETARDATION (3)
PR: ED 305, PC 201, or CI. Classification, diagnosis, characteristics, and treatment of the mentally retarded.
SE 325. EDUCATION OF GIFTED CHILDREN (3)
Nature and needs of academically talented students with emphasis on curriculum and research findings.

SE 371. INTRODUCTION TO COMMUNICATION DISORDERS (3)
Survey of etiologies, nature and prevention. Professional settings for the management of communication disorders. Classroom teacher amelioration of language, speech and hearing impairments.

SE 423. EDUCATIONAL PROCEDURES FOR THE EDUCABLE MENTALLY RETARDED (3)
PR: SE 322 or CI. Special class organization, curriculum adjustments, methods and techniques of teaching the educable retarded.

SE 424. EDUCATIONAL PROCEDURES FOR THE TRAINABLE MENTALLY RETARDED (3)
PR: SE 322 or CI. Special class organization, curriculum adjustments, methods and techniques of teaching the trainable retarded.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

SE 571. EVALUATION OF ORAL COMMUNICATION DISORDERS (3)
PR: SE 371 or CI. Articulation, voice, language, and stuttering disorders. Reporting, case management, referral, and professional relationship.

SE 572. EVALUATION OF AUDITORY COMMUNICATION DISORDERS (3)
PR: SE 371 or CI. Auditory and visual communication skills of the hearing impaired. Hearing aid consultation, non-organic hearing loss testing and reporting of hearing evaluation.

SE 573. METHODS FOR AUDITORY COMMUNICATION DISORDERS (3)
PR: SE 572 or CI. Speech reading, auditory training, electronic aids, and acoustic environment modification for the hearing impaired.

SE 574. METHODS FOR ORAL COMMUNICATION DISORDERS (3)
PR: SE 571. Classic and experimental approaches to and systems of evaluation of therapy in the management of speech impaired individuals.

SE 598. FIELD WORK IN SPECIAL EDUCATION (1-9)
PR: CI. Undergraduate students will enroll in SE 598 for three credit hours concurrently with ED 499. Participation in case staffings, research projects, secondary work-study programs, and sheltered workshops.

FOR GRADUATE STUDENTS ONLY

SE 611. PSYCHO-EDUCATIONAL APPRAISAL OF EXCEPTIONAL CHILDREN (3)
PR: ED 303 or 605 or CI. Special diagnostic procedures for exceptional children.

SE 612. SUPERVISION OF SPECIAL EDUCATION PROGRAMS (3)
Principles of supervision and their application to exceptional child education.

SE 613. ADMINISTRATION OF EXCEPTIONAL CHILD PROGRAMS (3)
Examination of administrative procedures which our local and state school systems may use to provide services for exceptional children.

SE 620. BIOLOGICAL AND PSYCHOLOGICAL ASPECTS OF MENTAL RETARDATION (3)
PR: SE 322 and ED 601, or CI. Evaluation of relevant literature.
SE 621. SOCIOLOGICAL AND EDUCATIONAL ASPECTS OF MENTAL RETARDATION (3)
PR: SE 322 and ED 601, or CI. Evaluation of relevant literature.

SE 622. ADVANCED EDUCATIONAL PROCEDURES FOR THE MENTALLY RETARDED (3-6)
PR: SE 323, experience in teaching the retarded, identification of a problem prior to registration, or CI. Specific curriculum and methodological problems in teaching the retarded.

SE 631. BEHAVIOR DISORDERS AND THE SCHOOLS (3)
Emotional and social disorders in children and the implications for educational programming.

SE 641. THE CULTURALLY DISADVANTAGED AND THE SCHOOLS (3)
Characteristics and needs of the culturally disadvantaged and their implications for educational programming.

SE 671. COMMUNICATION DISORDERS: VOICE (3)
PR: CI. Research and clinical literature on voice and voice disorders.

SE 672. COMMUNICATION DISORDERS: ARTICULATION (3)
PR: CI. Research and clinical literature on articulation and articulation disorders.

SE 673. COMMUNICATION DISORDERS: STUTTERING (3)
PR: CI. Research and clinical literature on stuttering and related disorders.

SE 674. COMMUNICATION DISORDERS: HEARING (3)
PR: CI. Research and clinical literature on hearing disorders.

SE 675. COMMUNICATION DISORDERS: LANGUAGE (3)
PR: CI. Research and clinical literature on language disorders.

SE 699. THESIS (3-6)

ENGINEERING

Faculty: J. Bowers, Burdick, I. Carr, Cowell, Deuel, Devine, Donaldson, Downey, Ellis, J. Gonzalez, Griffith, Kopp, Lindgren, Paster, Payne, Raga, B. Ross, Stubblebine, Scott, N. Smith, Terp, Twigg, Weaver, Wimmert.

Core Engineering Course Work

EB 101. ENGINEERING GRAPHICS (4)
Theory of orthographic projection, auxiliary views, isometric and oblique projections, fasteners, dimensions, and applicatory problems in descriptive geometry. lec-lab.

EB 201. DIGITAL COMPUTER PROGRAMMING (1)
Basic digital computer operation, Computer Programming Systems—FORTRAN, et. al.—used in solving engineering problems. Laboratory.

EB 203. ENGINEERING MEASUREMENTS (3)
An introduction to the concepts of the systems approach and various techniques of measurement in engineering systems, both of discrete and continuous variables. lec-lab.

EB 301. THERMODYNAMICS I (3)
PR: MA 204, PH 222. Development of laws and general equations of thermodynamics; concepts of force, displacement, work, and energy as applied to thermal systems.
EB 302. SOLID MECHANICS I (3)

EB 303. SOLID MECHANICS II (3)
PR: EB 302. CR: MA 204. Dynamics of discrete particles and distributed rigid bodies; spatial kinematics and kinetics. lec-problem.

EB 304. ENGINEERING MATERIALS I (4)
PR: CH 211, EB 302. A study and experimental determination of thermal, electrical, and mechanical properties of engineering materials from a unified structural approach. lec-lab.

EB 305. ENGINEERING EVALUATION (3)
PR: EB 201, MA 203. A study in analyzing and evaluating the economic limitation imposed on engineering activities. Basic models for making engineering decisions.

EB 306. ELECTRIC CIRCUITS I (3)
CR: MA 301 or equivalent, PH 222. The study of R, R-C, R-L and R-L-C electric circuits. Transient and steady state analysis of lumped resistive, capacitive and inductive circuits.

EB 307. ELECTRONICS I (3)
PR: EB 306. Characteristics and physical principles of electron devices; vacuum tubes, semi-conductor devices, gas tubes and photo cells. Analysis of basic electronic models.

EB 308. FLUID MECHANICS I (4)
PR: EB 303. Fundamental and experimental concepts in ideal and viscous fluids theory; momentum and energy considerations; compressible flow; boundary layer, Navier-Stokes equation. lec-lab.

EB 309. DYNAMIC RESPONSE TO ENGINEERING SYSTEMS (3)
PR: EB 302. CR: MA 204. Linear dynamic analysis of electrical, mechanical, pneumatic, hydraulic and thermal systems. Transient and frequency response. Block design representations, modes of control and factors affecting selection of measurement transducers. Introduction to analog computers. lec-lab.

Engineering Advanced Course Work

EG 311. ELECTRONICS II (4)

EG 314. ELECTRIC CIRCUITS II (4)
PR: EB 306. A continuation of EB 306. Provides further study of the transient and steady state responses of RLC networks to various forcing functions, from both the time and frequency domain points of view. Includes the analysis of three-phase resonant and coupled circuits, the introduction of LaPlace transform and Fourier integrals. lec-lab.

EG 331. MACHINE DESIGN I (4)
EG 341. THERMODYNAMICS II (3)
PR: EB 301. A continuation of EB 301 with emphasis on applications to processes of engineering interest. Power cycles, refrigeration cycles, fluid flow, chemical reactions.

EG 343. HEAT TRANSFER I (3)
PR: EB 301. Conduction in one, two and three dimensions. Free and forced convection; radiation; combined effects of conduction, convection and radiation.

EG 344. ENERGY CONVERSION LAB I (1)
CR: EG 343. Analysis of solid, liquid and gaseous fuels; tests of lubricants; analysis of combustion products; energy balances of thermal systems; heat transfer measurements.

EG 351. STRUCTURES I (3)
PR: EB 302. Elastic analysis of beams and columns; determination of stress and displacement fields in trusses and frames; concepts of variational energy principles including virtual work, minimum potential energy and complementary energy.

EG 352. SOLID MECHANICS III (3)
PR: EB 303. Motion in conservative and non-conservative fields; wave motion in deformable solids; gyroscopes and guidance; discrete and random vibration modes.

EG 353. FLUID MECHANICS II (3)
PR: EB 308. Hydraulics and hydrology; wave motion; introduction to physical oceanography.

EG 354. ENGINEERING MATERIALS II (4)
PR: EB 304. Structure of metals, ceramics and polymers; crystallography; polycrystalline aggregates; x-ray diffraction. lec-lab.

EG 371. INDUSTRIAL PROCESS ANALYSIS (3)
CR: EB 305. Analysis of processing industrial materials. Introduction to extraction, processing and fabrication.

EG 372. FUNDAMENTALS OF PRODUCTION DESIGN (4)
PR: EG 371. Introduction to the basic principles of work methods, work measurement and human factors as applied to production design. lec-lab.

EG 385. ENGINEERING STATISTICS (3)
PR: MA 204. Theory of statistical models; probability, distribution functions, tests of hypotheses.

EG 409. SPECIAL TOPICS IN ENGINEERING I (1-4)

EG 410. SPECIAL TOPICS IN ENGINEERING II (1-4)

EG 411. ELECTRICAL MEASUREMENTS (4)
PR: EG 311, 314. Techniques and principles of electronic measurements. lec-lab.

EG 413. ELECTRONIC COMPUTERS (3)
PR: EG 311, 314. An introduction to the design features of analog and digital computers. Basic components of computers, the interconnection of these components, number representation, special purpose computers.

EG 414. SYSTEM ANALYSIS I (4)
PR: CC. A course series, EG 414 through 416, to permit non-electrical majors to take advanced course work in the electrical area. lec-lab.
EG 415. SYSTEM ANALYSIS II (4)

EG 416. SYSTEM ANALYSIS III (4)

EG 417. COMMUNICATIONS ENGINEERING (4)
PR: EG 311, 314. A continuation of EG 311. Includes a study of modulation and detection processes, system applications of electrical circuits, receivers, transmitters, antennas, and propagation. lec-lab.

EG 419. CONTROL SYSTEMS (4)
PR: EB 306. Introduction to the analysis and design of linear feedback control systems, including steady state and transient performance.

EG 421. FIELDS AND WAVES (4)
PR: EG 314. A basic introduction to electromagnetic field theory, including static and dynamic electromagnetic fields. lec-lab.

EG 423. LINEAR SYSTEMS ANALYSIS (3)
PR: EG 314. Applications of the Fourier integral and Laplace transform to models of mechanical and electrical systems. Includes block diagram and signal flow graph methods.

EG 426. UHF PRINCIPLES (4)
PR: EG 314, 417. A study of tubes, devices and circuits peculiar to systems which operate at ultra high and super high frequencies. lec-lab.

EG 428. PULSE CIRCUIT PRINCIPLES (3)
PR: EG 311, 423. An introduction to the analysis and design of pulse and timing circuits with applications.

EG 431. MACHINE DESIGN II (3)
PR: EG 331. A continuation of EG 331 with emphasis on evaluation of dynamic loads and stresses. lec-lab.

EG 432. MECHANICAL VIBRATION AND BALANCING (3)
PR: EB 303, 309, EG 331. Transient and steady state vibration analysis of mechanical systems with lumped parameters. Dynamic balancing, vibration isolation and simulation of systems. lec-lab.

EG 433. ANALOG COMPUTERS I (3)

EG 434. MECHANICAL MEASUREMENTS AND CONTROL (3)
PR: EB 309 or CC. Linear analysis and block diagram representation of measuring devices, process and control system elements. Factors affecting choice of device and modes of control. lec-lab.

EG 412. FLUID MACHINERY (3)
PR: CC. Techniques for performance analysis and selection of fans, pumps, motors, compressors.

EG 443. FUELS AND COMBUSTION (3)
PR: EG 341. A study of the combustion characteristics of gaseous, solid and liquid fuels and equipment needed to safely and economically control combustion processes. lec-lab.
EG 444. ENERGY CONVERSION LAB II (2)

EG 445. INTERNAL COMBUSTION ENGINES (3)
PR: EG 341. Analysis of spark and compression ignition engines from the standpoint of thermodynamics, mechanical design and combustion.

EG 446. REFRIGERATION AND AIRCONDITIONING (3)
PR: EG 301. Application of the principles of thermodynamics, heat transfer and fluid flow to the design of systems for the control of environment. Study of factors affecting thermal load imposed on such systems. lec-lab.

EG 447. POWER PLANT ANALYSIS AND DESIGN (3)

EG 448. SENIOR DESIGN PROJECT (3)
PR: CC. lec-lab.

EG 451. STRUCTURES II (3)
PR: EG 351. Analysis of continuous beams; plastic analysis of single and multi-story structures; elastic and inelastic stability.

EG 452. STRUCTURES III (3)
PR: EG 451. Elastic and inelastic structures of composite materials; laminates and matrix media.

EG 453. FLUID MECHANICS III (3)
PR: EG 353. Continuation of EG 361. Mathematical and physical theory of compressible and incompressible inviscid flow with applications.

EG 454. ENGINEERING MATERIALS III (4)
PR: EG 354. Equilibrium systems; thermodynamics of metals, ceramics, and polymers; rate processes in metallic, ceramic and organic systems; phase transformation, diffusion and corrosion. lec-lab.

EG 455. EXPERIMENTAL S-M-F I (4)
PR: EB 308. Introduction to physical optics and application to engineering measurements. Photo elasticity and optical diffraction phenomenon, Moire fringe techniques and interferometry. lec-lab.

EG 456. EXPERIMENTAL S-M-F II (4)
PR: EG 455. Continuation of EG 455. lec-lab.

EG 457. SOIL MECHANICS (3)
PR: EG 351. Ideal and real properties of soils; granular and porous media; foundation mechanics.

EG 458. CONTINUUM MECHANICS I (3)
PR: EB 308. Development of fundamental problems in solids and fluids from a unified viewpoint; application to ideal media; elastic, plastic and viscoelastic.

EG 459. IRREVERSIBLE MECHANICS (3)
PR: EB 308. Entropy production in solid and fluid mechanics; analysis of discrete and continuous systems; coupling and the Onsager relations for solids and fluids.

EG 466. PRODUCTION METALLURGY (3)
PR: EG 354. Ores, processes, techniques in ferrous and non-ferrous production metallurgy; casting and forming operations.
EG 471. PRODUCTION CONTROL SYSTEMS I (3)

EG 472. PRODUCTION CONTROL SYSTEMS II (3)
PR: EG 372, 471. Continuation of EG 471.

EG 475. PLANT FACILITIES DESIGN (3)

EG 480. INTRODUCTION TO OPERATIONS RESEARCH (3)
PR: EG 385. An introduction to the basic operations research techniques—linear programming, dynamic programming, simulation and queueing.

EG 484. STATISTICAL QUALITY CONTROL (2)

EG 491. ELECTROMECHANICS I (4)

EG 492. ELECTROMECHANICS II (4)
PR: EG 491. Three phase induction motors, synchronous generators and motors, synchronous and static capacitors, rotary converters, self synchronous devices, lec-lab.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

EG 501. ENGINEERING ANALYSIS I (3)
PR: MA 204. Ordinary differential equations with emphasis on numerical methods and series solutions; the LaPlace transform; boundary value problems; orthogonal functions; vector analysis; partial differential equations; functions of a complex variable. A course series EG 501, 502, 503

EG 502. ENGINEERING ANALYSIS II (3)

EG 503. ENGINEERING ANALYSIS III (3)

EG 529. SPECIAL ELECTRICAL TOPICS I (1-3)
PR: CC.

EG 530. SPECIAL ELECTRICAL TOPICS II (1-3)
PR: CC.

EG 534. PNEUMATIC AND HYDRAULIC CONTROL (3)
PR: EG 419 or 434. A study of pneumatic and hydraulic control system components and their effect on closed loop system performance.

EG 535. NUMERICAL MEASUREMENT AND CONTROL (3)
PR: EG 419 or 434. Incremental and absolute control systems. Number systems used in numerical control. Digital to analog and analog to digital conversion. Applications.
EG 537. PHYSICAL MEASUREMENTS I (3)
PR: EB 309. The techniques and theory for measuring temperature, pressure, displacement speed, acceleration, force, power, and psychrometric properties with particular attention to dynamic measurement.

EG 541. ENERGY TRANSFORMATION AND STORAGE (3)
PR: EG 341. A study of direct energy conversion systems, rectifiers, inverters and storage devices.

EG 549. SPECIAL TOPICS IN ENERGY CONVERSION I (1-3)
PR: CC.

EG 550. SPECIAL TOPICS IN ENERGY CONVERSION II (1-3)
PR: CC.

EG 551. NON-LINEAR MECHANICS (3)
PR: EG 352. Non-Linear topics in dynamics, fluids and solids; non-Newtonian fluids, stability of dynamic systems, finite deflections of slender members, plates and membranes.

EG 552. LARGE DEFORMATIONS (3)
CR: EG 551. Large deformations in elastic and inelastic media; Eulerian and Lagrangian strain.

EG 554. ENGINEERING MATERIALS IV (4)
PR: EG 454. Response of materials systems to mechanical action; fracture, plastic flow, dislocation theory; fatigue; size effects; friction and wear. lec-lab.

EG 555. EXPERIMENTAL S-M-F IV (4)
PR: EG 456. Cross correlation and autocorrelation factors in multi-degrees of freedom response; stochastic processes; instrumentation and experimentation for multi-degree systems; Fourier analysis. lec-lab.

EG 556. EXPERIMENTAL S-M-F IV (4)
PR: EG 555. Continuation of EG 555. lec-lab.

EG 558. CONTINUUM MECHANICS II (3)
PR: EG 458. Continuation of EG 458.

EG 561. FLUID MECHANICS IV (3)
PR: EG 453. Elements of viscous fluid flow: Boundary layer theory; turbulence and separation.

EG 564. ENGINEERING MATERIALS V (3)
PR: EG 352, 354. Zone theory of solids and its relation to engineering properties; micro mechanics; advanced x-ray diffraction; second order effects.

EG 569. SPECIAL S-M-F TOPICS I (1-3)
PR: CC.

EG 570. SPECIAL S-M-F TOPICS II (1-3)
PR: CC.

EG 585. ENGINEERING STATISTICS II (3)
PR: EG 385, MA 205. Theory of testing, and theory of sampling with engineering problems.

EG 589. SPECIAL INDUSTRIAL TOPICS I (1-3)
PR: CC.
EG 590. SPECIAL INDUSTRIAL TOPICS II (1-3)
PR: CC.

EG 591. POWER SYSTEMS (3)
PR: CC. Analysis techniques for AC power systems.

EG 599. RESEARCH OR DESIGN (1-6)
PR: CC.

EG 629. SPECIAL ELECTRICAL PROBLEMS I (1-3)
PR: CC.

FOR GRADUATE STUDENTS ONLY

EG 630. SPECIAL ELECTRICAL PROBLEMS II (1-3)
PR: CC.

EG 631. MACHINE DESIGN III (3)

EG 632. DIMENSIONAL ANALYSIS (3)
PR: EB 306, 308, 309. Use of dimensional analysis in the study of engineering systems and design of models.

EG 636. FLUID AMPLIFIERS AND CIRCUITS (3)
PR: EG 534. Analysis and design of fluid devices for use as amplifiers and in logic systems.

EG 641. THERMODYNAMICS III (3)
PR: EG 341. General equations of thermodynamics, availability, chemical reactions and equilibrium, unsteady flow.

EG 642. HEAT POWER LABORATORY (1-3)
CR: CC.

EG 643. HEAT TRANSFER II (3)
PR: EG 541. A continuation of EG 541 with emphasis on convection during boiling, radiation and connection in three dimensions, heat sources and sinks.

EG 649. SPECIAL PROBLEMS IN ENERGY CONVERSION I (1-3)
PR: CC.

EG 650. SPECIAL PROBLEMS IN ENERGY CONVERSION II (1-3)
PR: CC.

EG 661. HYDROSPACE ENGINEERING I (3)
PR: CC. Advanced analysis of structural, material and fluid systems for marine environment, including underwater acoustics.

EG 662. HYDROSPACE ENGINEERING II (3)
PR: CC. Continuation of EG 661.

EG 669. SPECIAL S-M-F PROBLEMS (1-3)
PR: CC.

EC 670. SPECIAL S-M-F PROBLEMS (1-3)
PR: CC.
EG 671. NUMERICAL METHODS IN SYSTEM ENGINEERING I (3)
The study and application of matrix algebra, difference equations, calculus of finite differences, operation and transform methods and stochastic processes.

EG 672. NUMERICAL METHODS IN SYSTEMS ENGINEERING II (3)
PR: EG 671. Continuation of EG 671.

EG 673. SIMULATION (3)
PR: EG 585. Principles and application of simulation to the solution of industrial problems. Development of theoretical simulation models of complex systems.

EG 674. LINEAR AND DYNAMIC PROGRAMMING I (3)

EG 675. LINEAR AND DYNAMIC PROGRAMMING II (3)
PR: EG 674. A continuation of EG 674.

EG 676. QUEUEING THEORY (3)
PR: EG 585. Deterministic and probabilistic queueing models. Poisson queues and special non-Poisson queues with exponential and non-exponential services. Single and multiple channel queues.

EG 679. SPECIAL INDUSTRIAL PROBLEMS (1-3)
PR: CC.

EG 680. SPECIAL INDUSTRIAL PROBLEMS (1-3)
PR: CC.

EG 698. ADVANCED ENGINEERING SEMINAR (1)
PR: CC.

EG 699. RESEARCH OR DESIGN (1-12)
PR: CC.

ENGINEERING PROFESSIONAL COURSE WORK DUAL LISTED WITH THE UNIVERSITY OF FLORIDA

EL 635. NETWORK SYNTHESIS (3)
Network functions; physical realizability; two-terminal network synthesis methods; frequency transformation; potential analogy; approximation problems; insertion-loss and transfer function synthesis.

EL 636. NETWORK SYNTHESIS (3)
Second half of EL 635.

EL 641. NONLINEAR CIRCUITS (3)
Analytical and topological approaches to nonlinear circuits; nonlinear resonance; relaxation oscillations.

EL 645. ADVANCED CIRCUIT THEORY (3)
Network fundamentals; network characterization; frequency analysis; super-position integrals; signal-flow techniques; stability problems; real-and-imaginary relations.

EL 646. ADVANCED SYSTEM THEORY (3)
Applications of matrix analysis to the study of linearized dynamic systems and networks; state space; stability theory; extensions to discrete and nonlinear systems.
EL 650. PHYSICAL ELECTRONICS (3)

EL 654. THEORY OF COMMUNICATION (3)
Physical basis and statistical representation of electrical noise; filtering, modulation, and de-modulation of signals corrupted by noise; correlation techniques and linear prediction.

EL 655. ELECTROMAGNETIC FIELDS AND WAVES (3)
Electromagnetic theory from the engineering point of view, propagation and reflection of waves, guided waves, resonant cavities, antennas and radiation.

EL 656. ELECTROMAGNETIC FIELDS AND WAVES (3)
Second half of EL 655.

EL 658. STATISTICAL DECISION THEORY (3)
Hypothesis testing of signals in the presence of noise by Bayes, Neyman-Pearson, minimax criteria; statistical estimation of signal parameters; optimum filters and receivers; ambiguity functions and inverse probability.

EL 659. STATISTICAL COMMUNICATION THEORY (3)
Quantitative measure of information sources, noiseless channels, and information compression; noise channels and channel capacity; an introduction to error-correcting codes.

EL 661. LOGIC AND DESIGN OF DIGITAL CONTROL CIRCUITS (3)
Boolean algebra; propositional logic; switching devices; combination circuits; sequential circuits; systems design.

EL 673. CONTROL SYSTEM THEORY I (3)
Analysis and synthesis techniques of linear and nonlinear control systems. Computer as a control component.

EL 674. CONTROL SYSTEM THEORY II (3)
PR: EL 673. Second half of EL 673-674.

EL 675. SIMULATION TECHNIQUES (3)
Theory of simulation of systems characterized by lumped and/or distributed parameters.

EL 681. ELECTRIC POWER SYSTEMS I (3)
Steady-state and transient analysis of interconnected power systems; power circuit protection; transient characteristics of apparatus.

EL 682. ELECTRICAL POWER SYSTEMS II (3)
Continuation of EL 681.

IG 661. PLANT FACILITIES ANALYSIS (3)
Evaluation of alternative facilities and equipment location. Materials handling problem and integrated material flow systems.

IG 662. PRODUCTION CONTROL SYSTEMS (3)
PR: EG 385 (or equivalent). Forecasting procedures, development of production plans, scheduling techniques, and inventory models. Application of ADP to production control systems.
IG 665. ANALYSIS AND DESIGN OF MAN/MACHINE SYSTEMS (3)
Principles of human engineering as applied to industrial situations. Principles of work measurement, process analysis, and value analysis.

IG 666. ADVANCED ENGINEERING ECONOMY (3)
Evaluation of alternative systems within economic criteria. Statistical models of economic concepts. Replacement and optimization theory.

IG 684. RELIABILITY (3)
Analysis of the effects of physical phenomena on component reliability. Problems of designing interfaces and sub-systems. Statistical designs in reliability.

ENGLISH

EN 131. READING ACCELERATION (3)
Designed to change the reading habits and patterns of students from left-to-right progression to down-the-page progression. (Also see Developmental Reading.)

EN 201. MAJOR BRITISH WRITERS TO 1750 (3)
An introduction to the poetry, prose, and drama of English literature from its beginnings to the age of Johnson.

EN 203. MAJOR BRITISH WRITERS FROM 1750 to 1912 (3)
English literature from the pre-Romantics to the early twentieth century masters.

EN 305. MAJOR AMERICAN WRITERS TO 1865 (3)
A study of the major writers of the colonial, Federal, and romantic periods. These include Edwards, Taylor, Franklin, Hawthorne, Poe, Melville, Emerson, Thoreau, and Whitman.

EN 306. MAJOR AMERICAN WRITERS 1865-1912 (3)
A study of the major realists and early naturalists. These include Twain, James, Crane, Dreiser, Norris, London, Wharton, Dickinson, and Robinson.

EN 307. TWENTIETH CENTURY LITERATURE: 1912 to the PRESENT (3)
Works by such American and British writers as Eliot, Pound, Yeats, Thomas, Shaw, O'Neill, Hemingway, Faulkner, Huxley, Woolf, Joyce, Lawrence, and others.

EN 319. THE BIBLE AS LITERATURE (3)
Major emphasis on literary types, literary personalities of the Old and New Testaments, and Biblical archetypes of British and American literary classics.

EN 321. ADVANCED WRITING (3)
PR: CB 101-102. Emphasis upon excellence in the techniques of description and narration. Practice in the personal essay, critical review and narrative sketch. At least one paper of article length is required.

EN 325. ADVANCED EXPOSITORY WRITING (3)
Composition techniques in exposition, methods and styles of writing the article and the report.
EN 331. LITERARY FORMS (3)
An introduction to the disciplines of literary study which stress the fundamentals of interpretation, analysis and historical documentation.

EN 335-336. WORLD LITERATURE (3,3)
Classic literature of Eastern and Western cultures, exclusive of English works, and modern masterpieces of French, German, and Scandinavian writers.

EN 341. BASIC JOURNALISTIC WRITING (3)
Basic instruction in gathering, writing, and evaluating news stories for mass media. Experience in interviewing and use of news sources; laboratory experience on campus newspaper.

EN 343. WRITING FOR MASS COMMUNICATION (3)
A survey of major mass media of communication and study of basic writing techniques and practices in the fields of advertising, public relations, radio and television, newspapers and magazines. Laboratory experience.

EN 347. NEWS EDITING AND NEWS WRITING (3)
PR: EN 341 or EN 343. Evaluating news and display; gathering writing and editing news for the mass media; editing techniques, newspaper typography and makeup, ethical problems and communications law.

EN 349. MAGAZINE AND FEATURE WRITING (3)
PR: CB 101-102. A study of writing and marketing articles for general circulation magazines, trade and professional publications, and newspaper magazines and feature sections. Preparation of articles for submission to professional publications.

EN 411. PLAYS OF SHAKESPEARE (3)
PR: EN 201 or CI. Twelve comedies, chronicle plays, and tragedies, with attention to the influences of Shakespeare on classical drama, Renaissance ideas, and other Elizabethan playwrights.

EN 415. THE BRITISH NOVEL OF THE EIGHTEENTH CENTURY (3)
The historical development of the British novel; precursors of the novel; Richardson, Fielding, Smollett, Sterne, and the Gothic novelists.

EN 417. THE BRITISH NOVEL OF THE NINETEENTH CENTURY (3)
A continuation of the development of the British novel; Austen, Scott, Thackeray, Dickens, Trollope, the Brontes, Eliot, Meredith, Hardy, and Butler.

EN 421. IMAGINATIVE WRITING—POETRY (3)
Studies and exercises in prosody and imagery; written assignments in traditional and contemporary forms; evaluation of student work in individual conferences; selected reading. May be taken twice for credit.

EN 423. IMAGINATIVE WRITING—PROSE (3)
PR: EN 221 and CI. Study and writing of the short story, essays, and sections of the novel. Evaluation of student work in conferences, selected readings. May be taken twice for credit.

EN 437. CONTINENTAL NOVEL IN TRANSLATION (3)
Major European novels from the Eighteenth Century to the present. Emphasis upon French and Russian novels of the Nineteenth Century.

EN 481. INDIVIDUAL RESEARCH (credits vary)
PR: CI. Directed study in special projects. Recommended only when material cannot be studied in scheduled courses.
FOR SENIOR LEVEL AND GRADUATE STUDENTS

EN 501. CHAUCER (3)
PR: 12 hours of literature. An introduction to the language through the "Prologue" to The Canterbury Tales. Study of the Book of the Duchess, a selected number of Tales, the House of Fame, and Troilus and Criseyde.

EN 503. ENGLISH DRAMATIC LITERATURE TO 1642 (3)
(Exclusive of Shakespeare)
PR: 12 hours of literature. English drama from the liturgical plays to the closing of the theatres in 1642. Representative plays of Lyly, Kyd, Dekker, Beaumont and Fletcher, Ford, Marlowe, and Jonson.

EN 505. THE PROSE AND POETRY OF THE ENGLISH RENAISSANCE (3)
PR: 12 hours of literature. Emphasis upon leading metaphysical and Cavalier poets and upon prose writers from 1588-1660, with a brief study of major influences and figures from 1500-1588.

EN 507. MILTON: PROSE AND POETRY (3)
PR: 12 hours of literature. An examination of Paradise Lost, Paradise Regained, Comus and the shorter poems. Milton’s prose works will also be read.

EN 511. EXISTENTIAL AND RELIGIOUS THEMES IN MODERN LITERATURE (3)
PR: 12 hours of literature. Philosophic and theological idea, allusion, and symbol in the writings of Dostoievsky, Freud, Jung, Mann, Joyce, Eliot, Camus, Sartre, Faulkner, Pasternak, and others.

EN 515. HISTORY OF THE ENGLISH LANGUAGE (3)
PR: 12 hours of literature. The evolution of the language from Anglo-Saxon through Middle English to Modern English. Changes in pronunciation and syntax; discussion of the forces which influenced them.

EN 517. STRUCTURE OF AMERICAN ENGLISH (3)
PR: 75 hours or CI. The phonetics, phonology and morphology of American English. Structural grammar; the application of linguistics to the teaching of English.

EN 517. PLAY OF SHAKESPEARE (3)
PR: 12 hours of literature. Close reading of selected plays, with consideration of Shakespeare's language, his dramaturgical development, textual and editorial problems, and secondary criticism.

EN 521. BRITISH LITERATURE OF THE AUGUSTAN AGE (3)

EN 523. BRITISH VICTORIAN LITERATURE (3)
PR: 12 hours of literature. Victorian poets from Tennyson to Hardy; essayists from Carlyle to Wilde.

EN 525. THE AMERICAN NOVEL (3)
PR: 12 hours of literature. Selections from the novels of Charles Brockden Brown, Cooper, Hawthorne, Melville, Twain, Stephen Crane, Frank Norris, Edith Wharton, Henry James, and Theodore Dreiser.
EN 527. MODERN BRITISH AND AMERICAN POETRY (3)
PR: 12 hours of literature. Selected poets from Hopkins to the present, with attention to modern poetic theory.

EN 528. MODERN BRITISH AND AMERICAN FICTION (3)
PR: 12 hours of literature. Works by Conrad, Lawrence, Joyce, Hemingway, Faulkner, and others.

EN 531. LITERARY CRITICISM (3)
PR: 9 hours of literature and EN 331. The great critics and the principles of criticism. Applied criticism of fiction, poetry and drama.

EN 583. SELECTED TOPICS IN ENGLISH STUDIES (3)
PR: 12 hours of literature. The content of the course will be governed by student demand and instructor interest. It will examine in depth a recurring literary theme or the work of a small group of writers.

FOR GRADUATE STUDENTS ONLY

EN 601. THE NATURE OF TRAGEDY (3)
The Greek, Renaissance and Modern idea of tragedy; representative plays and fiction; the outstanding theorists.

EN 603. THE NATURE OF COMEDY AND SATIRE (3)
The history and theory of the related literary modes of comedy and satire; studies of typical works as well as of the psychological, anthropological, and rhetorical backgrounds of these genres.

EN 605. THE NATURE OF ROMANTICISM, CLASSICISM, AND NATURALISM (3)
Three important ways of looking at man, as expressed in representative works of literature and in theory.

EN 607. THE NATURE OF MYTH, ALLEGORY, AND SYMBOLISM (3)
Research into the theory of literary symbolism and its relationship to myth and ritual; applications of theory to specific works from different periods and cultures.

EN 615. MAJOR TRENDS IN AMERICAN LITERATURE (3)
An intensive study of selected ideas and movements affecting American letters; for example, Puritanism, Transcendentalism, Regionalism, Pragmatism, Imagism.

EN 623. LITERARY SCHOLARSHIP AND METHODS OF RESEARCH (3)
Introduction to aims and methods of literary scholarship. Detailed studies of bibliographies of cultural milieus, genres, periods, and authors. Brief attention to thesis style and form.

EN 659. STUDIES IN RESTORATION AND EIGHTEENTH CENTURY DRAMA (3)
Congreve, Wycherley, Sheridan, and others.

EN 667. STUDIES IN THE LATER ENGLISH NOVEL (3)
Dickens, Thackeray, Eliot, and others.

EN 681. GRADUATE RESEARCH (1-6)
PR: CI. Directed study in special projects. Recommended only when material cannot be studied in scheduled courses.

EN 695. STUDIES IN MODERN DRAMA (3)
Ibsen, Shaw, Chekhov, Strindberg, and others.
FINANCE

Faculty: R. Neel, chairman; Deiter, Modrow, Monath, Power.

FI 201. PERSONAL FINANCE (3)
Closed to students majoring or intending to major in the College of Business Administration. Personal finance with special emphasis on budgeting, borrowing, insurance, investments, taxes, home ownership, and family financial planning.

FI 301. PRINCIPLES OF FINANCE (3)

FI 303. PRINCIPLES OF INSURANCE (3)
Principles of risk insurance and applications to business management and personal affairs, concepts and methods of handling risks, insurance carriers, contracts and underwriting, loss prevention and settlement, government insurance programs.

FI 305. PRINCIPLES OF REAL ESTATE (3)
The nature of real property, principles of urban land utilization, classification of property rights, urban development, real property valuation, the real estate market and its functions, and government regulation of real estate practices.

FI 351. INTERNATIONAL FINANCE (3)

FI 411. ADVANCED CORPORATION FINANCE (3)
PR: FI 301. Intensive study in the areas of financial planning, capital budgeting, management of funds, business valuation and promotion.

FI 421. PRINCIPLES OF INVESTMENT (3)
PR: FI 301. Survey of the basic instruments, principles, and techniques of investment and portfolio selection. Survey of methods of analyzing market behavior, and the major types of securities with emphasis on equities.

FI 431. FINANCIAL INSTITUTIONS (3)
PR: FI 301. Private and governmental financial units, their place in the national economy, relationships to other business and financial institutions and influence upon the supply of and demand for funds.

FI 451. BANK MANAGEMENT AND FEDERAL RESERVE POLICY (3)
PR: EC 201-202. Study of managerial problems of commercial banking within the framework of national monetary policy.

FI 461. POLICY PROBLEMS IN CORPORATION FINANCE (3)
PR: FI 411. Application of finance principles within the internal and external environment of the business enterprise.

FI 471. PORTFOLIO MANAGEMENT (3)
PR: FI 421. Study of principles underlying selection and management of portfolios to achieve investment objectives.

FI 489. SPECIAL STUDIES IN FINANCE (3)
PR: CI. Additional study of a specialized or non-specialized nature for majors. Materials for the course selected and studied in conjunction with the major professor.
FOR GRADUATE STUDENTS ONLY

FI 601. FINANCIAL MANAGEMENT (3)
The formulation of corporate financial policies and an analysis of the means of achieving these policy objectives under conditions of changing corporate circumstances.

INTRADIVISIONAL FINE ARTS

Faculty: Beecher, Clay, Hoffman, Saff.

FA 401. COMPARATIVE ARTS/VISUAL ARTS (3)
PR: Two history courses in student's major field, or CI. Intensive study and comparison of history, aesthetics, works of art, and techniques in the visual arts for the music arts or theatre arts major.

FA 403. COMPARATIVE ARTS/MUSIC ARTS (3)
PR: Two history courses in student's major field, or CI. Intensive study and comparison of history, aesthetics, works of art, and techniques in music arts for the visual arts or theatre arts major.

FA 405. COMPARATIVE ARTS/THEATRE ARTS (3)
PR: Two history courses in student's major field, or CI. Intensive study and comparison of history, aesthetics, works of art, and techniques in theatre arts for the visual arts or music arts major.

FA 491. SENIOR SEMINAR (3)
PR: FA 401, 403 or 405, or CI. To aid majors to understand, appraise and perfect their own art and technique through critical and aesthetic judgments of colleagues in other arts. Discussion and critical evaluation.

FRENCH

Faculty: Artzybushev, Cervone, Cherry, Corriere, Crant, de la Menardiere, Galler.

Basic courses listed under Basic Studies.
Also see Romance Languages (RL).

FR 221. TECHNICAL FRENCH (3)
Primarily for students majoring in science or those desiring help in learning to read texts and research material in a specialized field.

FR 301. ADVANCED COMPOSITION (3)
To develop the student's ease in and command of written French and to increase his vocabulary and familiarity with the idiom in free and fixed composition.

FR 303. ADVANCED CONVERSATION AND PRONUNCIATION (3)
Designed to develop ease in speaking correct French with attention given to aural comprehension, pronunciation and intonation.

FR 305. SURVEY OF FRENCH LITERATURE (3)
Middle Ages, Renaissance and Seventeenth Century.

FR 306. SURVEY OF FRENCH LITERATURE (3)
Eighteenth, Nineteenth, and Twentieth Centuries.

FR 403. FRENCH PHONETICS AND DICTION (1)
French phonology with emphasis on phonic groupings; the international Phonetic Alphabet. Correction of the individual student's errors in diction.
FR 491. SENIOR SEMINAR (3)
Study in depth of a specific writer or literary movement as chosen by the instructor. Individual research required of students.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

FR 501. RENAISSANCE (3)
A study of French literature during the Renaissance with emphasis on Rabelais, Montaigne, and the Pleiade.

FR 521-522. LITERATURE OF THE SEVENTEENTH CENTURY (3,3)
Literary trends in French classicism. Descartes, Pascal, Corneille, Racine, Moliere, La Fontaine.

FR 531-532. LITERATURE OF THE EIGHTEENTH CENTURY (3,3)
The Age of Enlightenment. The growth of modern thought and criticism. Montesquieu, Diderot, Voltaire, Rousseau, the novel and the theatre.

FR 541-542. LITERATURE OF THE NINETEENTH CENTURY (3,3)
Romanticism, Realism, Naturalism, the Parnassian and Symbolist schools. Poetry, drama and the novel.

FR 551-552. LITERATURE OF THE TWENTIETH CENTURY (3,3)
Proust, Gide, Claudel, Valery, Giraudoux, Sartre, Camus, and others. Poetry, drama and the novel.

FR 581. DIRECTED STUDY (3)
Specialized individual work in an area not covered by a regular course.

FOR GRADUATE STUDENTS ONLY

FR 621. COMIC WRITERS OF THE SEVENTEENTH CENTURY (3)
A study of the comedies of Moliere, the influence he received from his predecessors and the influence he exerted on his contemporaries and successors.

FR 651. LITERARY EXISTENTIALISM (3)
A course on the origins and development of Existentialist literature with emphasis on the works of Sartre and Camus.

FR 691. GRADUATE SEMINAR (3)
Study of a specific literary movement. Students do research in depth on aspects of the movement being studied. Class discussion and papers required. Movement chosen to be announced one trimester in advance.

FR 692. GRADUATE SEMINAR (3)
Study in depth of one or more major literary figures. Class discussion and papers based on research. Author or authors to be studied will be announced one trimester in advance.

GENERAL ADMINISTRATION

Faculty: Boggs, Dutton, Heier, Hodges, Reynolds, W. Shannon, Wharton.

CA 351. AUTOMATIC DATA PROCESSING (3)
PR: AC 201 or CI. Automatic data processing machines; theory of wiring and use in business; types of business applications and case problems; basic computer concepts.

CA 361. BUSINESS LAW I (3)
The nature of legal institutions, essentials of a binding contract, remedies granted in event of breach of contract and rights acquired by assignment of contracts.
GA 362. BUSINESS LAW II (3)
PR: GA 361. Legal problems in marketing of goods, nature of property, sales of personal property, securing of credit granted, nature and use of negotiable instruments.

GA 371. BUSINESS COMMUNICATIONS (3)
Analysis and application of the principles of persuasion in business communication; composition and evaluation of functional business letters; examination of effective text, tabular and graphic presentation in formal business reports.

GA 451. ELECTRONIC DATA PROCESSING (3)
PR: GA 351. Systems, procedures, and analysis; computer problem solving, utilizing a business programming language as a management tool in business.

GA 499. SENIOR SEMINAR IN BUSINESS ADMINISTRATION (3)
PR: Graduating senior. Students draw upon materials from their complete college program and apply them to case studies, research projects and class discussion. Topics include business policy, operations, and the environment of business.

GEOGRAPHY

Faculty: A. Gonzalez, chairman; Fuson, Rothwell.

GE 201. INTRODUCTION TO GEOGRAPHY (3)
Nature, method, principles, and concepts of the discipline; maps and their properties; earth-sun relations; place-names; field study. Prerequisite to all undergraduate courses in geography.

GE 301. SYSTEMATIC GEOGRAPHY (5)
PR: GE 201. General description and analysis of the major physical and cultural elements and resources of the geographic landscape. Prerequisite to all higher undergraduate courses in geography.

GE 403. PHYSICAL GEOGRAPHY (2-5)
PR: GE 201, 301, and CI. Systematic study of a selected topic in physical geography. May be repeated as topics vary, but the same topic may not be repeated for credit.

GE 405. CULTURAL GEOGRAPHY (2-5)
PR: GE 201 and 301. Systematic study of a selected topic in cultural geography. May be repeated as topics vary, but the same topic may not be repeated for credit.

GE 407. REGIONAL GEOGRAPHY (2-5)
PR: GE 201 and 301. Synthesis and analysis of the physical and cultural elements in a selected geographic region. May be repeated as regions vary, but the same region may not be repeated for credit.

GE 409. GEOGRAPHIC TECHNIQUES AND METHODOLOGY (2-5)
PR: GE 201, 301, and CI. Study and application of a selected technique or methodological aspect of geography. May be repeated as topics vary, but the same topic may not be repeated for credit.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

GE 581. INDIVIDUAL RESEARCH (1-3)
PR: 20 hours in GE and CI. Arrangement must be made with chairman prior to registration. May be repeated.
GE 585. DIRECTED READING (1-3)
PR: 20 hours in GE and CI. Arrangement must be made with chairman prior to registration. May be repeated.

FOR GRADUATE STUDENTS ONLY

GE 601. GEOGRAPHY IN WORLD SOCIETY (3)
A conceptual approach that examines the geographic framework in which our social, economic, and political systems have evolved; an areal interpretation and evaluation of earth realities.

GEOLOGY

Faculty: Ragan, chairman; Boulware, Hood, Wimberley.

GY 201. INTRODUCTION TO GEOLOGY (4)
Study of earth materials and the processes responsible for changing the face of the earth. Examination of minerals and rock specimens, topographic and geologic maps and aerial photographs. Historical geology continues the study. Occasional field trip studies. lec-lab.

GY 301. INTRODUCTION TO HISTORICAL GEOLOGY (4)
Study of the record of past life and interpretation of the major physical events in the history of the earth. Occasional field trip studies. lec-lab.

GY 303. INTRODUCTION TO PALEONTOLOGY (4)
Paleontology and stratigraphic occurrence of most important invertebrate fossils of the geologic record. lec-lab.

GY 311. MINERALOGY (5)
PR: GY 201 and CH 211-212, or equivalent. Introduction to Crystallography. Systematic study of mineral groups and their identification by chemical, physical, and microscopic methods. lec-lab.

GY 312. PETROLOGY (3)
PR: GY 311. Systematic study of rock groups, including composition, origin, and classification using modern methods of rock study. lec-lab.

GY 361. STRUCTURAL GEOLOGY (3)
PR: GY 201 or equivalent. Application of basic principles of geology, mathematics and physics in solving relationships of strata and interpreting structural features in the earth's crust.

GY 401. FIELD METHODS (3)
PR: 10 hours of geology courses. Fundamentals of geology in the field laboratory; compass and plane table mapping, mapping of aerial photos, reconnaissance surveys, interpretation of geologic structures. lec-lab.

GY 411. MARINE GEOLOGY (3)

GY 441. ECONOMIC MINERAL DEPOSITS (3)
PR or CR: GY 311. Principles involved in the origin, occurrence, recovery and use of mineral resources with emphasis on factors related to Florida deposits. lec-lab.
GY 471. SOILS (4)
PR: General Chemistry or equivalent. The origin, geologic development, formation, and nature of soils. Fundamentals of soil science, including the physical, chemical and biological factors affecting soil fertility with special application to the soils and ecology of Florida. lec-lab.

GY 473. EARTH SCIENCE (4)
Earth’s environment in space, including a selected study of its materials, processes, climate, oceans, soils and history. lec-lab.

GY 481. UNDERGRADUATE RESEARCH (1-3)
PR: Senior or advanced junior standing and CI. Individual experimental investigations with faculty supervision. Limit of three credits.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

GY 503. SEDIMENTATION (4)
PR: GY 303 and 311. Geologic factors governing chemical, physical, and biological interactions and deposition of marine sediments. lec-lab.

GY 512. ADVANCED MARINE GEOLOGY (4)
Continuation of GY 411, but requires written investigative reports and submarine mapping. Occasional marine trips required. lec-lab.

GY 531. STRATIGRAPHY (3)
PR: GY 301. Principles involving the petrography, tectonic environment, distribution, correlation, and stratigraphic problems of sedimentary sequences. Occasional field studies.

GY 533. GEOMORPHOLOGY (3)
PR: CI. Origin, evolution and distribution of land forms.

GY 551. HYDROGEOLOGY (3)
PR or CR: GY 201. Geologic factors involved in the occurrence, chemical composition, distribution, recovery and use of subsurface water.

GY 583. SELECTED TOPICS IN GEOLOGY (1-3)
PR: Senior or advanced junior standing and CI. Each topic is a course in directed study under supervision of a faculty member. Courses include: Introductory Geological Oceanography, Advanced Stratigraphic Paleontology, Marine Geophysics, Geotectonics, Palynology, Geochemistry, Sedimentary Processes, and Sedimentary Techniques.

GY 591. GEOLOGY SEMINAR (1)
PR: Senior or advanced junior standing and CI. May be repeated once.

FOR GRADUATE STUDENTS ONLY

GY 611. OPTICAL MINERALOGY (4)
PR: GY 311 or CI. Identification of non-opaque solids by determination of their optical constants, and principles involved in the determinative methods. (Graduate students from other departments who have not taken GY 311 may be admitted under special arrangements.)

GY 621. MARINE MICROPALÉONTOLOGY (4)
PR: GY 301, 303 or equivalents. Principal groups of microfossils in marine sediments and cores. Paleoecology, correlation, and applications to petroleum and paleomarine problems.

GY 631. CLAY MINERALOGY (4)
PR: GY 311, GY 312. Mineralogy of clays (including identification).
GY 681. GRADUATE RESEARCH (1-3)
PR: CI.

GY 683. SELECTED TOPICS IN MARINE GEOLOGY (1-3)
PR: CI.

GY 691. GRADUATE SEMINAR (1)

GERMAN

Faculty: Galler, Karklins, Price, Stelzmann.

Basic courses listed under Basic Studies.

GN 221. TECHNICAL GERMAN (3)
Primarily for students majoring in science or those desiring help in learning to read texts and research material in a specialized field.

GN 301-303. ADVANCED COMPOSITION AND CONVERSATION (3,3)
Intensive study of writing and conversation skills based on readings in German cultural history and drama. Descriptive grammar and syntax.

GN 305. SURVEY OF GERMAN LITERATURE (3)
Old High German and Middle High German literature in modern German translation; the literature of Humanism and Barock; the Classical Period.

GN 306. SURVEY OF GERMAN LITERATURE (3)
The Romantic Period, Nineteenth and Twentieth centuries.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

GN 513. HISTORY OF GERMAN LANGUAGE (3)
Development of the language from the Indo-European family: Gothic, Old High German to Middle High German, and East-Middle German.

GN 521. GOETHE'S FAUST (3)
Sources, form, content, and literary significance of Urfaust, Faust I and II.

GN 531. CLASSICAL PERIOD (3)
Lessing: drama and aesthetic writings. Goethe: novels, novelle, and autobiographical writings; lyric poems and epics; dramas (except Faust). Schiller: philosophical writings, drama and poetry.

GN 532. ROMANTIC PERIOD (3)
Jenaer circle and the Heidelberger circle, the late Romantic Period, the writers between Classicism and Romanticism.

GN 541. LITERATURE OF THE 19TH CENTURY (3)

GN 551. LITERATURE OF THE 20TH CENTURY (3)

GN 581. DIRECTED STUDY (3)
Specialized individual work in an area not covered by a regular course.
GREEK

Faculty: Gessman.

GR 301-302. BASIC GREEK (3,3)
PR: Junior/senior standing, or a minimum of two years of Latin or another inflected language; e.g., German, Russian, Modern Greek, or CI. Accelerated course in Ancient Greek (Attic) language and introduction to Greek literature.

GR 481. DIRECTED STUDY (3)
Specialized study of linguistic or literary topics dependent upon student's need and interest.

HISTORY

Faculty: Goldstein, chairman; Arnade, Futch, W. George, Gessman, Hilliard, Silbert, Swanson, Waite.

PART I

HI 111-112. AMERICAN HISTORY (3,3)
A history of the United States with attention given to relevant developments in the Western Hemisphere. 111: European origins to 1865; 112: 1865 to present.

HI 121-122. HISTORY OF CIVILIZATION (4,4)
Chief political, social, economic, and cultural developments that have shaped civilization; interrelationships with the non-Western World. 121: prehistory to 1713; 122: 1713 to present.

HI 231-232. MODERN EUROPEAN HISTORY (3,3)
Basic patterns of modern European history; the rise of the nation-state; economic, social and intellectual developments; traditions and patterns that have shaped European institutions and cultural development. 231: Renaissance to 1815; 232: 1815 to present.

PART II

HI 311. AMERICAN FOREIGN RELATIONS (3)
The development of principles and problems of American foreign policy, especially in the 20th century.

HI 315. THE CIVIL WAR AND ITS AFTERMATH (3)
The causes of the Civil War and the factors, forces and atmosphere which produced the reconstruction policy following the war, with continued emphasis on the Negro down to the present.

HI 317. HISTORY OF FLORIDA (3)
A history of Florida and the Caribbean. Florida as an area of discovery, colonization and imperial conflict; the emergence of Florida within its regional setting.

HI 321. ANCIENT CIVILIZATIONS (3)
A history of the nations and empires of the ancient Mediterranean and Near East, emphasizing their political, economic and religious institutions and their achievements in philosophy and science.

HI 323. MEDIEVAL CIVILIZATION (3)
The development of European ideas and institutions during the Middle Ages.
HI 325. THE RENAISSANCE REFORMATION 1337-1560 (4)
Renaissance Italy, early capitalism, economic expansion and overseas discovery, new monarchies, the Italian wars, the Empire of Charles V, the Protestant and Catholic Reformations.

HI 331. EUROPE IN THE TWENTIETH CENTURY (3)
The development of European international relations from the post-World War I period to the present, with concentration on the more recent period.

HI 337-338. A HISTORY OF RUSSIA (3,3)
An introductory survey of the primary political, social economic, and cultural institutions of Russia from its pre-history to the present. 337: pre-history to 1917; 338: 1917 to present.

HI 341-342. BRITISH HISTORY (3,3)
British history and the Empire from the Roman conquest to modern times. 341: will include the period to 1688; 342: 1688 to present. (formerly HI 241).

HI 351-352. LATIN AMERICAN HISTORY (3,3)
Examines the Iberian-Indian Civilization in the New World from the 15th through the 20th centuries. 351: conquests and colonization to the Independence Movements of the 19th century; 352: the Ibero-American states from the Wars of Independence to the present.

HI 361. REVOLUTION IN THE MODERN WORLD (3)
The nature of revolution in modern history, especially the American, French, Russian, and more recent revolutions.

HI 371. FAR EAST (3)
A history of the Far East, including China, Korea and Japan, from early to modern times.

PART III

HI 411. AMERICAN SOCIAL AND INTELLECTUAL HISTORY (3)
Major religious, scientific, political, economic and philosophical ideas of the American people and their leaders in relation to the nation’s social environment.

HI 433. EUROPEAN SOCIAL AND INTELLECTUAL HISTORY (3)
The rise of modern science, the Age of the Enlightenment, and Romanticism in modern European history.

HI 465. SCIENCE AND CIVILIZATION (3)
A survey of the impact of science on western civilization from the ancient Egyptians to the present, emphasizing the relationship of science to socio-economic, political and intellectual development.

HI 485. DIRECTED READING (1-3)
PR: Arrangement with instructor prior to registration. Readings in special topics.

HI 491. SENIOR SEMINAR IN HISTORY (3)
Introduction to the methods of historical research and writing, bibliography, and directed research in special topics designed to meet the particular needs and interests of individual student.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

HI 527. GREEK HISTORY (3)
PR: HI 321 or equivalent. History of Ancient Greece and the Aegean area from the beginning of the Cretan civilization down to and including the Hellenistic period, and history of Greek colonization.
HI 529. ROMAN HISTORY (3)
PR: HI 321 or 527 or a major in Latin. Early history of Italy and the Etruscan civilization. History of Rome and her empire to the beginning of the Middle Ages.

HI 587. HISTORIOGRAPHY (3)
PR: To be taken during senior year. The various schools of historical thought, representative historians, bibliography and an introduction to the problems of philosophy of history.

FOR GRADUATE STUDENTS ONLY

HI 685. DIRECTED READING (1-3)
PR: CC. Readings in special topics.

HUMANITIES


HU 307-308. HUMANITIES AND HUMANE VALUES (3,3)
PR: CB 203-204 or CI. Masterpieces of music, visual arts, literatures and philosophy in varying cultural and historical situations.

HU 311-312. TWENTIETH CENTURY ARTS AND LETTERS (3,3)
PR: CB 203-204 or CI. Developments internationally in the arts, literature and philosophy since 1900. Concentration on two major creative workers in each major art form.

HU 313-314. ROMANTIC ARTS AND LETTERS (3,3)
PR: CB 203-204 or CI. Origins of Romanticism before 1800; growth through 19th century, European and American; reactions against Romanticism.

HU 315-316. THE ENLIGHTENMENT (3,3)
PR: CB 203-204 or CI. Analysis of chief arts, literatures and philosophies in the period from 1650 to the end of the 18th century; Rationalism, neo-Classicism and the Baroque.

HU 317-318. RENAISSANCE ARTS AND LETTERS (3,3)
PR: CB 203-204 or CI. A careful examination, in intellectual and social context, of masterpieces and major artists of the Renaissance (about 1350 to 1650) in Europe and England.

HU 321-322. MEDIEVAL ARTS AND LETTERS (3,3)
PR: CB 203-204 or CI. The humanities and cultural activities from the 11th to the 14th centuries. Influences from Byzantine, Arabian and early Christian sources.

HU 323-324. CLASSICAL ARTS AND LETTERS (3,3)
PR: CB 203-204 or CI. A careful analysis, in historical context, of masterpieces selected from the arts and letters of ancient Greece and Rome.

HU 411. SELECTED NON-WESTERN HUMANITIES (3)
PR: CB 203-204 or CI. Materials chosen from arts and literatures of Asia and Africa; varied to serve needs of Area Studies programs in Social Science.

HU 415. LATIN AMERICAN ARTS AND LETTERS (3)
PR: CB 203-204 or CI. Analysis of selected Latin American works of art in their cultural context.
HU 431. HUMANITIES IN THE ORIENT: INDIA (3)
PR: CB 203-204 or CI. Examples from arts and literatures of India and the relationship of these arts to the Hindu and Buddhist philosophy-religions.

HU 432. HUMANITIES IN THE ORIENT: CHINA (3)
PR: CB 203-204 or CI. Examples from arts and literatures of China, and the relationship to Taoism, Confucianism and other Chinese philosophies; western influences in 20th century Chinese thought.

HU 433. HUMANITIES IN THE ORIENT: JAPAN (3)
PR: CB 203-204 or CI. Examples from arts and literatures of Japan; relationship to Zen Buddhism and other Japanese philosophy-religions; western influences in 20th century Japanese society.

HU 435-436. HUMANITIES IN AMERICA (3,3)
PR: CB 203-204 or CI. Development of humane arts and values in the Americas, especially the United States; influences from Europe; stress on important individual artists and thinkers.

HU 471. PHILOSOPHY OF THE ARTS (3)
PR: Senior classification, 6 credits in 300-level HU courses, and CI. Readings in philosophical approaches to the various arts.

HU 491. SELECTED PROBLEMS IN HUMANITIES (3)
PR: Senior classification, 6 credits in 300-level HU courses, and CI. Problems in the interrelationships among the fine arts and the natural, social and behavioral sciences.

ITALIAN

Faculty: Artzybushev, Micarelli, Milani.

Basic courses listed under Basic Studies.
History of Romance Languages listed under Romance Languages.

IT 301. ADVANCED ITALIAN COMPOSITION (3)
To improve the student's ability in writing Italian, to increase his ability in comprehension and use of the grammatical elements. Practice in both free and fixed composition.

IT 303. ADVANCED ITALIAN CONVERSATION (3)
To develop fluency and correctness in spoken Italian.

IT 305. SURVEY OF ITALIAN LITERATURE (3)
From the origins through the 18th century.

IT 306. SURVEY OF ITALIAN LITERATURE (3)
Italian literature of the 19th and 20th centuries.

IT 491. SENIOR SEMINAR (3)
Study in depth of a specific writer or literary movement, as chosen by the instructor. Individual research required of students.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

IT 511-512. LIFE AND WORKS OF DANTE (3,3)
The works of Dante with special emphasis on the Divine Comedy. Special attention to the author's life and times as reflected in his works.
IT 541. NINETEENTH CENTURY ITALIAN LITERATURE (3)
Romanticism, Realism and Naturalism in Italy.

IT 543. TWENTIETH CENTURY ITALIAN LITERATURE (3)
A comprehensive study of the major writers of the century, with special emphasis on D'Annunzio and Pirandello.

IT 581. DIRECTED STUDY (3)
Specialized individual study in an area not covered by a regular course.

LATIN

Faculty: Gessman, chairman.

LA 111-112. ELEMENTARY LATIN (3,3)
Elements of grammar, practice in translation from and into Latin, readings of selections from simple Latin texts.

LA 221. INTERMEDIATE LATIN (3)
Prose: selections from Cicero's speeches and from the letters of Pliny the Younger. Study of more difficult portions of Latin grammar.

LA 222. INTERMEDIATE LATIN (3)
Poetry: selections from the Aeneid; thematic, stylistic and formal analysis of the Roman epic; comparison with Homer.

LA 311. LATIN POETRY (3)
Selected passages from Catullus, Ovid and Horace read and interpreted. Study of poetic form and metre. Introduction to Graeco-Roman mythology.

LA 313. LATIN PROSE (3)
Selected readings from Sallust, Livy, Tacitus and Roman philosophical works. Discussion of Roman historiography and philosophy and the Greek influence on them.

LA 411-412. ADVANCED GRAMMAR AND COMPOSITION (3,3)

LA 413-414. LATIN LITERATURE AND BACKGROUNDS (3,3)
Fast survey of Greek literature and discussion of Roman dependence on Greek literary topics, concepts and forms. Survey of Latin literature from Ennius to Augustine. Study of sample texts.

FOR UPPER LEVEL AND GRADUATE STUDENTS

LA 517. LATINO-ROMANCE LINGUISTICS (3)
PR: Some knowledge of Latin or a Romance language. Case study of linguistic development of 4,000 years from Proto-Aryan through Latin to modern Romance languages.

LA 581. DIRECTED STUDY (3)
Specialized study of linguistic or literary topics depending on student's need and interest.
LINGUISTICS

Faculty: Gessman, chairman; O'Hara, Scheib.

LI 301. FOUNDATIONS OF LANGUAGE (3)
Introduction to synchronic linguistics. Basic concepts, general features of language. Dialects, kinship groups, language types; writing systems. Methods of structural analysis with emphasis on the Trubetzkoy-Jakobson approach.

LI 411-412. DESCRIPTIVE LINGUISTICS (3,3)
Introduction to the IPA and the Harris-Smith-Trager approach to phonemic, morphemic, and syntactic analysis with its application to American English and other analytic languages.

FOR UPPER LEVEL AND GRADUATE STUDENTS

LI 501. LANGUAGE IN CHANGE (3)

LI 581. DIRECTED STUDY IN LINGUISTICS (3)
Study, according to student’s needs and interests, of special areas, including languages not regularly offered; e.g., Hebrew or Sanskrit. Regular classes can be set up in any such area, subject to sufficient number of students.

MANAGEMENT

Faculty: Morell, chairman; Alexander, Dutton, Heier.

MM 301. PRINCIPLES OF MANAGEMENT (3)
PR: EC 201-202. A course designed to present a carefully organized system of concepts by which the basic meaning and the fundamental truths of management can be grasped. This course is limited to that body of principles which underlies all management regardless of type or size of organization.

MM 341. PERSONNEL MANAGEMENT (3)
PR: MM 301. Systematic analysis of personnel problems in organizations. Emphasis is placed upon employee motivation and supervisory skills, handling personnel problems, manpower and employee selection and development, and incentives for effective performance.

MM 343. PERSONNEL PROBLEMS (3)
PR: MM 341. Application of personnel management theory and concepts to practical organization problems. Case study approach considers situations faced by line and staff executives at all levels in the firm, and provides problem-solving incidents which parallel actual company experience.

MM 371. INDUSTRIAL RELATIONS (3)
PR: MM 341. The impact of trade unionism on industrial relations. Current problems, conflicts and trends; the development of managerial approaches to achieve labor-management cooperation.

MM 381. MANAGEMENT SYSTEMS (3)
PR: MM 301, MK 301, and FI 301. Basic elements of information systems will be developed and applied to manual, business machine and computer information systems. Principles of business systems design, systems flow-charting, systems auditing and the economic justification of business systems.
MM 421. PRODUCTION MANAGEMENT (3)
PR: MM 301. A course designed to present a framework of principles and methods of factory management, and to develop the student's ability to make sound managerial decisions, especially at the operational level.

MM 431. ORGANIZATION THEORY (3)
PR: MM 301. Study of organizations using the social system approach while at the same time retaining the lasting contributions of traditional, formal organization theory. Special attention is given to modifying existing organization systems.

MM 441. WAGE AND SALARY ADMINISTRATION (3)
PR: MM 341. Determination and administration of wage and salary programs with emphasis on managerial policies, techniques and control procedures in solving wage and salary problems.

MM 445. BEHAVIORAL FACTORS IN ORGANIZATIONS (3)
PR: MM 343. The analysis of the relationship of psychology and management. Evaluation of the writings, theories, experiments and problem-solving efforts of contemporary behavioral scientists. Special emphasis placed on research dealing with stress, attitudinal change, and creativity.

MM 471. MANAGEMENT SCIENCE (3)
PR: MM 421. Acquaints the advanced student with the basic techniques of operations research. Analysis of the elements of mathematical model construction and use of models in decision-making under certainty, risk, and uncertainty. Topics include the transportation model, linear programming, dynamic programming, game theory and simulation techniques.

MM 489. RESEARCH STUDIES IN MANAGEMENT (3)
PR: Senior standing. Independent research studies in Management of a specialized or general nature. Materials for the research projects to be selected and studied under the direction of a major professor in the field of management. This course should be taken in the final trimester of the program.

FOR GRADUATE STUDENTS ONLY

MM 601. HUMAN RELATIONS IN ORGANIZATIONS (3)
An analytical view of the modern human relations movement with stress of development since the 1930's. Incorporates the philosophy of the behavioral sciences and relates it to the management process.

MM 603. COMMUNICATIONS THEORY IN INDUSTRY (3)
Investigation of the communication process through analysis of the available literature. Pragmatic business writing, general semantics, readability studies, cybernetic theory, and network analysis will be among the topics covered.

MM 605. SEMINAR IN ADMINISTRATIVE POLICY (3)
A course designed to present an organized and integrated approach to the managerial decision-making process. Case problems will be presented to give students practice and guidance in arriving at sound decisions and in the determination of valid administrative policies. This course should be taken in the final trimester of the program.

MARKETING

Faculty: Morell, chairman; Sleeper, Dimbath, Cunningham.

MK 301. BASIC MARKETING (3)
PR: EC 201-202. Survey of the marketing of goods and services within the economy. The integration of functional, commodity, and institutional approaches from the consumer and management viewpoints.
MK 311. PROMOTIONAL FUNDAMENTALS AND STRATEGY (3)
PR: MK 301 and EC 301 which may be taken concurrently. The determination of promotion and price as marketing variables, including advertising, sales promotion, personal selling, sales force management, and pricing strategies.

MK 315. MARKETING INSTITUTIONS AND CHANNELS (3)
PR: MK 301. A detailed study of retailing and wholesaling institutions, industrial marketing, channel selection, followed by problem analyses.

MK 411. MARKETING RESEARCH (3)
PR: MK 301 and EC 331 or MA 145. A study of research methods applicable to problem-solving in the field of marketing.

MK 413. CONSUMER BEHAVIOR (3)
PR: MK 301. An investigation and application of the behavioral factors affecting consumer demand. Consideration given to industrial, governmental and ultimate consumers.

MK 415. MARKETING MANAGEMENT (3)
PR: MK 311 and 315. Management of the marketing function of firms: objectives, planning, organization, controlling of the total marketing effort and coordination with other major functional areas.

MK 419. MARKETING PROBLEMS (3)
PR: MK 311, 315, and 411. The integration of marketing knowledge in solving specific marketing problems. Selected readings and case analyses.

MK 459. INTERNATIONAL MARKETING (3)
PR: MK 311, 411. A study of the procedures and problems associated with establishing marketing operations in foreign countries. The institutions, principles, and methods involved in the solution of these problems will be treated as well as effects of national differences on business practices.

MK 489. SPECIAL STUDIES IN MARKETING (3)
PR: MK 311, 315, 411, and CI. Intensive independent research in marketing under the direction of a major professor, progress and final analysis reported in seminar.

FOR GRADUATE STUDENTS ONLY

MK 601. ADVANCED MARKETING PROBLEMS (3)
A study of the marketing problems of the firm approached from a management point of view. Emphasis is placed upon the development of the student’s ability to analyze marketing situations, identify problems, determine solutions, implement corrective action, and plan marketing strategy.

MATHEMATICS

Faculty: Cleaver, chairman; Fusaro, Goodman, Ha, Y. Lin, G. Michaelides, Reed, Roth, Schaefer, Zerla.

Basic courses listed under Basic Studies; remedial courses listed under Developmental Mathematics.

MA 101. FOUNDATIONS OF UNIVERSITY MATHEMATICS (4)
PR: Two years of secondary school algebra, one year of plane geometry. Real numbers and their properties; introduction to analytic trigonometry and geometry.

MA 203. CALCULUS I (4)
PR: MA 101 with a grade of "C" or better or CI. Limits derivatives, applications, graphs, the definite integral.
MA 303. CALCULUS II (4)
PR: MA 203 with a grade of "C" or better. Basic properties of continuous and differentiable functions and the integral.

MA 304. CALCULUS III (4)
PR: MA 303 with a grade of "C" or better. Infinite series, solid analytic geometry, vectors, partial derivatives.

MA 345. INTRODUCTORY STATISTICS (3)
Measures of central tendency, dispersion and skewness; probability; testing hypotheses; lines of best fit; measures of correlation; applications.

MA 401. DIFFERENTIAL EQUATIONS (3)
PR: MA 304 with a grade of "C" or better. Ordinary differential equations, derivative operator, series solutions, applications.

MA 405. ADVANCED CALCULUS I (3)
PR: MA 304 with a grade of "C" or better. Probability, differential geometry, line and surface integrals, differential equations, numerical analysis.

MA 406. ADVANCED CALCULUS II (3)
PR: MA 405. Continuation of MA 405.

MA 409. SET THEORY (2)
PR: MA 203 or CC. Relations, functions, order, cardinal numbers.

MA 421. LINEAR ALGEBRA (3)
PR: MA 203 or CC. Vectors and vector spaces, Euclidean n-space, determinants, linear transformations, matrices.

MA 423. SYNTHETIC GEOMETRY (3)
PR: MA 203. Emphasis on axiomatics, advanced Euclidean geometry, elements of projective geometry, non-Euclidean geometries.

MA 431. VECTOR ANALYSIS (3)
PR: MA 304. The algebra and calculus of vectors, applications, general coordinates, introduction to tensor analysis.

MA 445. PROBABILITY AND STATISTICS (3)
PR: MA 303. Theorems in probability, mathematical expectation, law of large numbers and applications, fundamental limit theorems.

MA 447. NUMERICAL ANALYSIS (3)
PR: MA 304. Interpolation and quadrature, finite differences, numerical solution of algebraic and transcendental equations, numerical solution of differential equations, computer techniques.

MA 471. THE SCOPE AND SIGNIFICANCE OF MATHEMATICS (3)
(For non-science majors)
PR: Senior or junior standing. Students having completed MA 203 are not eligible to enter this course. The development of mathematical thought and its application to the physical world, the social sciences, and the fine arts, emphasizing the importance and meaning of mathematics in contemporary culture.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

MA 513. REAL ANALYSIS I (3)
MA 514. REAL ANALYSIS II (3)
PR: MA 513. Measure theory and integration.

MA 521. COMPLEX ANALYSIS I (3)
PR: MA 304. Complex numbers, analytic functions and mapping, integrals, power series.

MA 522. COMPLEX ANALYSIS II (3)
PR: MA 521. Residues and poles, conformal mapping and applications.

MA 523. ALGEBRA I (3)
PR: MA 304 and 409. Semi-groups and groups, rings and fields, modules and ideals, lattices.

MA 524. ALGEBRA II (3)

MA 531. TOPOLOGY I (3)

MA 532. TOPOLOGY II (3)
PR: MA 531. Product, quotient and metric spaces, embedding.

MA 541. APPLIED MATHEMATICS I (3)
PR: MA 401. Linear transformations, operators, Eigenvalue problems and boundary value problems of mathematical physics, Fourier series.

MA 542. APPLIED MATHEMATICS II (3)
PR: MA 541. Continuation of MA 541.

MA 571. GEOMETRY FROM AN ADVANCED STANDPOINT (3)
PR: A bachelor's degree or CI. Axiomatic development of geometries, with emphasis on Euclidean geometry, for teachers and others.

MA 573. SET THEORY AND ALGEBRA FROM AN ADVANCED STANDPOINT (3)
PR: A bachelor's degree or CI. Basic concepts of the language of mathematics, including a study of relations, functions, algebraic structures, for teachers and others.

MA 583. SELECTED TOPICS (3)
PR: Senior or junior standing. Each topic is a course of study. 01—History of Mathematics, 03—Logic and Foundations, 05—Number Theory, 07—Topics in Algebra, 09—Mathematics for Physics, 11—Topics in Probability and Statistics.

FOR GRADUATE STUDENTS ONLY

MA 615. MODERN ANALYSIS I (3)

MA 616. MODERN ANALYSIS II (3)
PR: MA 615. Continuation of MA 615.

MA 617. BANACH SPACES AND ALGEBRAS I (3)

MA 618. BANACH SPACES AND ALGEBRAS II (3)
PR: MA 617. Continuation of MA 617.
MA 625. ABSTRACT ALGEBRA I (3)
PR: CC. Group theory, ring and module theory, commutative algebra, Galois theory.

MA 626. ABSTRACT ALGEBRA II (3)
PR: MA 625. Continuation of MA 625.

MA 627. HOMOLOGICAL ALGEBRA (3)

MA 629. LIE GROUPS (3)
PR: MA 616 or 626 or 634, and CC. Topological groups, representation of compact Lie groups, algebraic groups.

MA 633. ADVANCED TOPOLOGY I (3)
PR: CC. Topological spaces, uniform and function spaces, homotopy theory.

MA 634. ADVANCED TOPOLOGY II (3)

MA 635. ALGEBRAIC TOPOLOGY (3)
PR: MA 634 and CC. Homotopy theory, polytopes, simplicial homology theory.

MA 637. TOPOLOGICAL ALGEBRA I (3)
PR: MA 634 and CC. Topological semi-groups, topological groups, topological rings and fields, Haar measure.

MA 638. TOPOLOGICAL ALGEBRA II (3)
PR: MA 637. Continuation of MA 637.

MA 639. DIFFERENTIAL GEOMETRY (3)
PR: CC. Local differential geometry, curvature, evolutes and involutes, calculus of variations.

MA 643. PARTIAL DIFFERENTIAL EQUATIONS I (3)
PR: MA 401 and CC. First order and second order equations, Cauchy problem, Dirichlet problem, etc. Mean value theorems.

MA 644. PARTIAL DIFFERENTIAL EQUATIONS II (3)

MA 651. LOGIC AND FOUNDATIONS I (3)
PR: CC. Propositional calculus, Post's theorem, first order and equality calculi, models, completeness and consistency theorems, Godel's theorem, recursive functions.

MA 652. LOGIC AND FOUNDATIONS II (3)
PR: MA 651. Continuation of MA 651.

MA 683. SELECTED TOPICS (3)
PR: CC. 01—Topology, 02—Analysis, 03—Algebra, 04—Applied Mathematics, 05—Graph Theory, 06—Number Theory.

MA 691. GRADUATE SEMINAR (1)
Direction of this seminar is by a faculty member. Students are required to present research papers from the literature.

MA 699. THESIS (1-6)
May be taken more than once, but not more than a total of six hours credit will be allowed.
MUSIC


MU 213. MUSIC THEORY (3)
Required of music majors. Fundamentals of musicianship approached through aural and visual analysis of musical styles from Gregorian chant through the Renaissance, review of music rudiments, stylistic composition for voices, counterpoint, form, sight-singing and dictation, keyboard techniques.

MU 214. MUSIC THEORY (3)
PR: 213. Continuation of fundamental approach of MU 213, styles of the Baroque, counterpoint, form, diatonic harmony, triads and 7th chords, simple modulation.

APPLIED MUSIC
Vocal and instrumental instruction for all levels. Students are classified according to technical ability and musical background. They are placed in graded units by audition only. Students have one private lesson each week, which is devoted to individual technical and musical problems. They also meet in a class once each week, which follows the pattern of a master class, hearing each other perform, and learning to analyze and discuss technic, interpretation, style, etc.

ENSEMBLE REQUIREMENT
All applied vocal and instrumental students who are qualified will be required to enroll in a major ensemble. Piano students will be required to enroll in MU 305 (Chamber Music Ensemble). May be repeated for credit.

MU 215. BEGINNING STRING INSTRUMENTS (1)
MU 225. BEGINNING PIANO (1)
MU 235. BEGINNING VOICE (1)
MU 245. BEGINNING WOODWIND INSTRUMENTS (1)
MU 255. BEGINNING BRASS INSTRUMENTS (1)
MU 265. BEGINNING PERCUSSION INSTRUMENTS (1)
MU 275. BEGINNING ORGAN (1)
MU 303. INTRODUCTION TO MUSIC (2)
For non-music majors. A study of the art of music and its materials, designed to develop an understanding of basic principles of music and a technique for listening to music.

MU 305. CHAMBER MUSIC ENSEMBLE (1)
Open to students with the necessary proficiency in their performance mediums. Study and performance of literature for small combinations of string, woodwind or brass instruments, voice, and piano. May be repeated for credit.

MU 307. MUSIC LITERATURE (2)
PR: MU 214 or CI. A stylistic and historical survey of Western music from its beginning to the end of the 17th century designed to develop a technique for listening analytically to music. Required of all music majors and open to non-music majors.
MU 308. MUSIC LITERATURE (2)
PR: MU 214 or CI. A continuation of MU 307. A survey of Western music from the 18th century to the present.

MU 313. MUSIC THEORY (3)
PR MU 214. Continuation of fundamental approach of MU 213-214. Styles of the Classic and Romantic periods; chromatic harmony, larger forms; transposition and instrumentation, score reading; stylistic composition for piano, voices and instrumental combinations.

MU 314. MUSIC THEORY (3)
PR: MU 313. Continuation of fundamental approach of MU 313. Twentieth century styles, serial composition and other contemporary techniques, creative composition for various performance media.

MU 315. INTERMEDIATE STRING INSTRUMENTS (2)
MU 325. INTERMEDIATE PIANO (2)
MU 335. INTERMEDIATE VOICE (2)
MU 345. INTERMEDIATE WOODWIND INSTRUMENTS (2)
MU 355. INTERMEDIATE BRASS INSTRUMENTS (2)
MU 365. INTERMEDIATE PERCUSSION INSTRUMENTS (2)
MU 375. INTERMEDIATE ORGAN (2)
MU 385. UNIVERSITY ORCHESTRA (1)
Description under MU 389.

MU 387. UNIVERSITY BAND (1)
Description under MU 389.

MU 389. UNIVERSITY CHORUS (1)
PR: CI. Study, rehearsal and performance of major musical works. Membership open to all University students by audition on a credit or non-credit basis. Non-credit members receive no grade but are required to participate in all scheduled rehearsals and concerts. Credit members will complete a documented written report on a trimester self-study project in addition to the performance requirements and the study of musicological aspects of the literature performed by the group. May be repeated for credit.

MU 413. MUSIC THEORY (3)
PR: MU 314. Advanced problems in analysis of music of various styles. Emphasis on individual research by students.

MU 414. MUSIC THEORY (3)
PR: MU 413. Continuation of MU 413.

MU 477. STRING WORKSHOP (2)
To prepare music teachers for inaugurating a string instrumental program. Methods, techniques and materials for the organization and execution of heterogeneous string classes will be studied, performed and evaluated.

MU 481. DIRECTED STUDY (1-6)
PR: CC.
FOR SENIOR LEVEL AND GRADUATE STUDENTS

MU 503. COMPOSITION (3)
PR: MU 314 or CI. Creative writing for various instrumental and vocal media, solo and ensemble. Emphasis on composition in contemporary idioms. Includes class performance, critical discussion of compositions by students and instructor. May be repeated for a maximum of 12 credits.

MU 515. ADVANCED STRING INSTRUMENTS (2)

MU 521. PIANO MASTER CLASS (2)
PR: CI. Study and performance of selected piano literature with special emphasis on style, form and technique. Especially designed for teachers, piano majors and talented secondary school pupils. Credit and non-credit students must attend all scheduled class sessions, private lessons and concerts.

MU 525. ADVANCED PIANO (2)

MU 531. VOICE MASTER CLASS (2)
PR: CI. Study and performance of selected voice literature with special emphasis on style, form and technique. Especially designed for teachers, voice majors and talented secondary school pupils. Credit and non-credit students must attend all scheduled class sessions, private lessons and concerts.

MU 535. ADVANCED VOICE (2)

MU 545. ADVANCED WOODWIND INSTRUMENTS (2)

MU 555. ADVANCED BRASS INSTRUMENTS (2)

MU 565. ADVANCED PERCUSSION INSTRUMENTS (2)

MU 571. STUDIO TEACHING (2)
PR: CI. Advanced instrumentalists or vocalists planning studio teaching as a career. Emphasis on the organization of materials, literature and techniques.

MU 575. ADVANCED ORGAN (2)

MU 593. ORCHESTRA WORKSHOP (2)
Description under MU 597.

MU 595. BAND WORKSHOP (2)
Description under MU 597.

MU 597. CHORUS WORKSHOP (2)
PR: CI. The study, rehearsal and performance of ensemble literature. Membership open to University students, teachers and secondary school pupils. Those eligible may register for credit. Non-credit members receive no grade but are required to participate in all scheduled classes and concerts.

FOR GRADUATE STUDENTS ONLY

MU 601. SYMPHONIC LITERATURE (3)
A chronological study of the development of orchestral music. Works will be analyzed and studied from a stylistic and biographical perspective.

MU 603. MASTERWORKS OF CHORAL LITERATURE (3)
A chronological study of the development of choral music. Works will be analyzed and studied from a stylistic and biographical perspective.
MU 607. COUNTERPOINT (3)
PR: MU 314. A study of the compositional techniques of Lassus and Palestrina of the 16th century and Bach and his contemporaries of the 18th century. Stylistic principles to be derived from intensive analysis and writing.

MU 609. COMPOSITION (3)
PR: MU 314. Original composition in varied forms. Emphasis on analysis and application of contemporary techniques and styles. May be repeated for a maximum of nine credits.

MU 611. TWENTIETH CENTURY MUSIC (3)
PR: MU 314. A study of the compositional techniques of composers from Debussy to the present. Emphasis on counterpoint, harmonic structure, tonality, atonality, polytonality, texture, and the 12-tone technique.

MU 615. VOCAL MATERIALS AND CONDUCTING (3)
A study of materials appropriate for use in vocal groups. Emphasis given to conducting skills.

MU 617. INSTRUMENTAL MATERIALS AND CONDUCTING (3)
A study of materials appropriate for use in instrumental groups. Emphasis given to conducting skills.

INTERDISCIPLINARY OCEANOGRAPHY

Faculty: Briggs, chairman; Dawes, Kopp, Lawrence, Linton, Taft.

OG 311. INTRODUCTION TO OCEANOGRAPHY (2)
A survey of modern oceanography and its methods, including the important features of physical, chemical, biological, and geological oceanography.

During Trimester III-A (1966) at the Bay Campus of the University, the following marine field courses will be offered: ZO 313, 519, 523, and BO 443 (course descriptions are given under Zoology or Botany).

OFFICE ADMINISTRATION

Faculty: E Miller, acting chairman; Daniels, Pasternak.

OA 141. INTRODUCTORY TYPEWRITING (2)
For students with no previous instruction in typewriting. Basic skills of typing for personal use, common types of business letters, reports and tabulated materials.

OA 143. ADVANCED TYPEWRITING (2)
PR: OA 141 or equivalent. Expands typewriting skills and applications, introduces skill-building procedures.

OA 251. INTRODUCTORY SHORTHAND (3)
PR: OA 141. Introduction to basic skills and vocabulary in Gregg Shorthand.

OA 253. DICTATION AND TRANSCRIPTION (3)
PR: OA 251 and 143, or equivalent of each. Review of basic skills and vocabulary and emphasis on dictation and transcription skills.
OA 351. ADVANCED SHORTHAND (3)
PR: OA 253 and 143, or equivalent of each. Increased dictation speed and the transcription of mailable business correspondence.

OA 353. OFFICE ADMINISTRATION (3)
Function of the business office, including planning for office equipment and supplies, actuating office employees, controlling the work of the office and principles of office organization.

OA 361. BUSINESS MACHINES (2)
PR: OA 141 or equivalent. Instruction and practice in the use and functions of calculating and secretarial machines in today's business office.

OA 461. SECRETARIAL PROCEDURES (3)
PR: OA 351. Development of executive secretarial concepts, instruction and practice in various office duties such as records control, handling mail, arranging itineraries and telephone techniques.

PHILOSOPHY

Faculty: Gould, chairman; Chen.

PY 301. PROBLEMS OF PHILOSOPHY (3)
An introduction to the major philosophical problems in methodology, epistemology, philosophy of science, and philosophy of history as seen in the writings of Plato, Descartes, Berkeley, Hume, James, etc.

PY 303. LOGIC (3)
Language analysis and classical and modern formal logic, including the logic of classes and propositions.

PY 304. SCIENTIFIC METHOD (3)
Probability, inductive inference, the hypothetico-deductive method, experimentation and selected topics in the philosophy of science.

PY 311. FOUNDATIONS OF PHILOSOPHY (3)
An introduction to the major philosophical problems in ethics, political and social philosophy, philosophy of religion, and metaphysics as seen in the writings of Plato, Aristotle, Mill, Kant, Sartre, Kierkegaard, etc.

PY 321. ETHICS (3)
The writing of some of the great moral philosophers: Plato, Aristotle, Spinoza, Kant, Sartre, etc.

PY 322. AESTHETICS (3)
The nature of beauty and fine art as analyzed by the great philosophers.

PY 333. ANCIENT AND MEDIEVAL PHILOSOPHY (3)
A survey of philosophy from Thales through the medieval writers.

PY 334. RENAISSANCE AND MODERN PHILOSOPHY (3)
A survey of philosophy from the Renaissance through the modern writers.
PY 377. SOCIAL PHILOSOPHY (3)
A semantic and logical analysis of rival theories of social order; their philosophical foundations and comparative gaps between their ideological claim and social reality.

PY 405. CONTEMPORARY PHILOSOPHY (3)
PR: 6 hours or CI. Selected schools of 20th century thought such as idealism, positivism, pragmatism, realism, and existentialism.

PY 411. PHILOSOPHY OF RELIGION (3)
Analysis of religious experience and activity and examination of principal religious ideas in light of modern philosophy.

PY 413. AMERICAN PHILOSOPHY (3)
Major traditions in American thought—Puritanism, the Enlightenment, Transcendentalism, Idealism, Pragmatism, and Analytic Philosophy—in relation to American culture.

PY 415. PLATO AND ARISTOTLE (3)
A study of the two great Greek philosophers. The examination of Plato will include the dialogues Protagoras, Gorgias, Meno, Republic; while the readings in Aristotle will be taken from the Nicomachean Ethics and the Politics.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

PY 507. PHILOSOPHY OF SCIENCE (3)
The nature and functions of science; the logic of scientific method; clarification of such concepts as cause, law, theory, probability, determinism, simplicity, technology.

PY 509. SYMBOLIC LOGIC (3)
PR: PY 303 or CI. Mathematical treatment of formal logic, including methods of proof, quantification, the logic of relations, and an introduction to properties of deductive systems.

PY 511. PHILOSOPHY OF LAW (3)
The nature and function of law, relations between law, morality and metaphysics, logic of legal reasoning, analysis of fundamental concepts and institutions.

PY 571. SEMINAR IN EPISTEMOLOGY I (3)
PR: Major in philosophy or psychology and CI. Theory of perception.

PY 572. SEMINAR IN EPISTEMOLOGY II (3)
PR: Major in philosophy or psychology and CI. The possibility and conditions of knowledge.

PY 573. SEMINAR IN METAPHYSICS I (3)
PR: Major in philosophy and CI. A consideration of the theory of reality.

PY 574. SEMINAR IN METAPHYSICS II (3)
PR: Major in philosophy and CI. Cosmology.

PY 583. DIRECTED STUDY (1-3)
PR: Approval by the instructor of a project submitted by the student. For majors in philosophy who want to pursue a personal research project.
PHYSICAL EDUCATION—Basic

Faculty: R. Bowers, Cheatham, Grindey, Heeschen, Hertz, Osborne, Holcomb, Jonaitis, Prather, Rey, S. Taylor, H. Wright, J. Young.

See Education, page 114, for Physical Education for Teachers. Abbreviations: (C) coeducational; (M) men; (W) women.

PE 101. FUNCTIONAL PHYSICAL EDUCATION (0)
Prerequisite to all courses except Beginning Swimming. Stresses importance of optimum fitness for daily living and basic instruction in the appreciation of participation sports. Evaluation of physical fitness.

PE 102-129. TEAM SPORTS, CONDITIONING, DANCE, RECREATION (0)
Fundamental experiences in team and group activities. Physical conditioning and self-expression through team competition, rhythmic activities and outdoor education skills.

102 BASKETBALL AND VOLLEYBALL (M) (W)
106 FIELD HOCKEY AND TRACK & FIELD (W)
112 SOFTBALL AND VOLLEYBALL (M) (W)
113 SOCCER AND SPEEDBALL (M) (W)
115 SPECIAL CONDITIONING (C)
   Adaptive.
116 SPECIAL CONDITIONING (M) (W)
   Required of those falling below the 25th percentile on motor fitness.
117 SPECIAL CONDITIONING (M) (W)
   Special interest.
119 FOLK AND SQUARE DANCE (C)
   Recommended for elementary education majors.
120 MODERN DANCE (INTERMEDIATE-ADVANCED) (C)
   PR: PE 166 or equivalent.
121 TAP DANCE (C)
122 SOCIAL DANCE (C)
123 OUTDOOR EDUCATION (C)
124 RECREATIONAL ACTIVITIES (C)
125 RIFLERY (C)
126 BEGINNING RIDING (C)
129 PROFICIENCY (content to be certified by Physical Education Division)

PE 130-149. AQUATIC SPORTS (0)
Essential aquatic skills and knowledges vital to individual and group survival, safety and recreation.

130 BEGINNING SWIMMING (C)
132 INTERMEDIATE SWIMMING (C)
134 ADVANCED SWIMMING (C)
136 LIFE SAVING (C)
138 SCUBA DIVING (C)
140 WATER SAFETY INSTRUCTION (C)
142 SYNCHRONIZED SWIMMING (C)
144 CANOEING AND SAILING (C)
149 PROFICIENCY (content to be certified by Physical Education Division)

PE 150-180. INDIVIDUAL AND DUAL ACTIVITIES (O)
Basic instruction in recreational sports, fundamental sport skills, individual development and acquisition of dance techniques and skills. Development of desirable levels of strength, endurance, agility, balance and poise.

150 ARCHERY (C)
152 BADMINTON (C)
156 BOWLING (C)
158 FENCING (C)
160 GOLF (C)
164 HANDBALL AND PADDLEBALL (C)
166 MODERN DANCE (BEGINNERS) (C)
168 TENNIS (C)
169 WRESTLING (M)
170 GYMNASTICS (C)
178 WEIGHT TRAINING (M)
179 PROFICIENCY (content to be certified by Physical Education Division)

PHYSICS

Faculty: Forman, chairman; Aubel, Bloch, Brooker, Chung, Clapp, D. Cooper, Kendall, R. Mitchell, Turbeville.

PH 205-207. GENERAL PHYSICS (3:1)
PR: Proficiency test in mathematics and science. First half of general physics and lab for science students. Must be taken concurrently.

PH 206-208. GENERAL PHYSICS (3:1)
PR: PH 205-207. Second half of general physics and lab for science students. Must be taken concurrently.

PH 221-223. GENERAL PHYSICS (3:1)
CR: MA 203. First half of general physics and lab for physics majors and engineering students. Must be taken concurrently.

PH 222-224. GENERAL PHYSICS (3:1)
PR: PH 221-223. Second half of general physics and lab for physics majors and engineering students. Must be taken concurrently.
PH 307. MECHANICS I (3)
CR: MA 304 and either prerequisite PH 222 or corequisite PH 315. Kinematics and dynamics of a particle, of a system of particles and of a solid body.

PH 309. ELECTRICITY AND MAGNETISM I (3)
PR: MA 304 and either prerequisite PH 222 or corequisite PH 315. Direct and altering circuits, thermoelectricity, and instrumentation.

PH 315. MATHEMATICAL ANALYSIS OF PROBLEMS IN MECHANICS AND ELECTRICITY (2)
PR: One year of non-calculus general physics. CR: MA 304. A course designed for physics majors and engineering students who have taken a noncalculus, general physics course. Not open to students who take PH 221 and 222 or equivalent.

PH 323. MODERN PHYSICS (3)

PH 341. INTERMEDIATE LABORATORY—GENERAL (1)
CR: Physics course of 300 level or above. Experiments related to various areas of physics.

PH 342. INTERMEDIATE LABORATORY—GENERAL (1)
PR: PH 341. Continuation of PH 341.

PH 405. THERMODYNAMICS (3)
PR: MA 304 and either prerequisite PH 222 or corequisite PH 315. Heat, the kinetic theory of gases, the laws of thermodynamics and introduction to statistical mechanics.

PH 407. MECHANICS II (3)
PR: PH 307 and MA 401. Mathematical analysis of the statics and dynamics of particles and rigid bodies.

PH 409. ELECTRICITY AND MAGNETISM II (3)
PR: PH 309 or CI. Electrostatics and electrokinetics, magnetic fields and magnetic properties of matter.

PH 431. GEOMETRICAL AND PHYSICAL OPTICS (3)
PR: PH 206 or 222. CR: MA 303. Wave motion, reflection, refraction, dispersion, emission of spectra, interference, diffraction and polarization.

PH 441. ADVANCED LABORATORY I (1)
PR: PH 341. Experiments related to nuclear physics.

PH 442. ADVANCED LABORATORY II (1)
PR: PH 341. Experiments related to optical phenomena.

PH 443. ADVANCED LABORATORY III (1)
PR: PH 341. Experiments related to electrical concepts.

PH 481. UNDERGRADUATE RESEARCH (1-3)
PR: Senior or advanced junior standing and CI. Individual experimental work under supervision of instructor.

PH 491. PHYSICS SEMINAR (1)
PR: Senior or advanced junior standing and CI. May be repeated once.
FOR SENIOR LEVEL AND GRADUATE STUDENTS

PH 501. NUCLEAR PHYSICS (3)
PR: PH 323 and MA 401. Stable nuclei and isotopes, radio-activity, nuclear reactions, binding energies, fission and fusion.

PH 521. SOLID STATE PHYSICS (3)

PH 523. ELECTRONICS (3)
PR: PH 409. Vacuum and gas-discharge tubes and associated circuits, electron dynamics, thermionic emission, space charge phenomena and electronic circuit analysis.

PH 537. QUANTUM MECHANICS (3)
PR: PH 407, MA 401 and CI. Heisenberg’s uncertainty principle, Schrodinger’s equation and the hydrogen atom.

PH 551. MODERN PHYSICS (3)
PR: PH 206 or 222. Electron dynamics, X-rays, Bohr-Sommerfeld atom and photoelectricity. (No credit for physics majors.)

PH 583. SELECTED TOPICS IN PHYSICS (1-3)
PR: Senior or advanced junior standing and CI. Each topic is a course in directed study under the supervision of a faculty member. The following courses are contemplated: electromagnetic theory, gaseous electronics, plasma physics, relativity and atomic and molecular structure.

FOR GRADUATE STUDENTS ONLY

PH 601. MODERN PHYSICS (3)
PR: PH 537 and CI. Quantitative study of molecular, atomic, and nuclear structure and spectra.

PH 607. CLASSICAL MECHANICS I (3)
PR: PH 407 and CI. Review of vectors, tensors, and matrices; dynamics of particles and systems of particles; the equations of Hamilton and Lagrange; fluid mechanics.

PH 608. CLASSICAL MECHANICS II (3)
PR: PH 607 and CI. Continuation of PH 607.

PH 631. ELECTROMAGNETIC THEORY I (3)
PR: PH 409 and CI. Electrostatics and magnetostatics; potential and boundary value problems; Maxwell’s equations, plane electromagnetic waves.

PH 632. ELECTROMAGNETIC THEORY II (3)
PR: PH 631 and CI. Continuation of PH 631.

PH 637. QUANTUM MECHANICS (3)
PR: PH 537 and CI. The theory of non-relativistic quantum mechanics.

PH 641. EXPERIMENTAL PHYSICS (1)
PR: Graduate standing. The practice of laboratory techniques.

PH 681. GRADUATE RESEARCH (1-3)
PR: CI.

PH 683. SELECTED TOPICS IN PHYSICS (1-3)
PR: CI. Each topic is a course in directed study under the supervision of a faculty member.
POLITICAL SCIENCE

Faculty: A. Kelley, chairman; R. Cooper, Gould, Kim, Nichols, Thompson, W. Young.

PS 199. INTRODUCTION TO POLITICAL SCIENCE (3)
A survey of the basic concepts in government and politics, theories and methods of political science and the American political system. This course is suggested for political science majors.

PS 201. AMERICAN NATIONAL GOVERNMENT (3)
Basic principles and procedures of the American governmental system with emphasis on current issues and trends.

PS 203. STATE AND LOCAL GOVERNMENT (3)
Analysis of the structure and function of state and local governments, of the social and political influences that shape them, and the dynamics of their administrative processes.

PS 311. COMPARATIVE POLITICS (3)
Analysis of political systems using the concepts and methods of comparative politics. Studies of selected countries will be included.

PS 321. CONSTITUTIONAL LAW (3)

PS 323. POLITICAL THEORY (3)
PR: PS 199 or Cl. Basic philosophical conceptions underlying the democratic system based on writings from the Greeks to the present day.

PS 331. INTERNATIONAL RELATIONS (3)
Contemporary international affairs, including analysis of politics among nations; control of national foreign policies, sovereignty, nationalism and diplomacy; technology, public opinion and war in international relations.

PS 333. INTERNATIONAL ORGANIZATION (3)
The problem of achieving peace through existing international structures, both within and outside the United Nations. The background, achievement and organizational problems of these agencies.

PS 341. POLITICAL PARTIES (3)
PR: PS 201 or Cl. The development, structure, operation and significance of political parties in the American system of government.

PS 345. PRIVATE GROUPS AND PUBLIC POLICY (3)
Role of non-party groups in the American society and their impact on public policy; growth of interest groups, internal politics, and formation of public policy.

PS 351. INTRODUCTION TO PUBLIC ADMINISTRATION (3)
PR: Upper level standing. An examination of the administrative principles and processes by which public policies are implemented in a democratic society.
PS 357. STATE PUBLIC POLICY (3)
Analysis and comparison of the structures and process by which state governments develop public policy with emphasis on Florida government.

PS 411. SOUTHEAST ASIA IN WORLD POLITICS (3)
The foundations of politics in Southeast Asia as found in its ecology, cultures, and social structures with particular emphasis on the political process and international relations.

PS 421. GOVERNMENT AND POLITICS OF THE FAR EAST (3)
Development of political ideas and institutions in Japan and China with emphasis on 20th century issues.

PS 441. THE AMERICAN PRESIDENCY (3)
The presidency as an institution of American democracy; constitutional status and powers, administrative responsibilities, legislative and political leadership, decision-making process.

PS 443. POLITICAL BEHAVIOR (3)
PR: PS 201 or CI. Economic, psychological and social dimensions of political behavior; political participation, leadership and elites; political attitudes; voting behavior and decision-making processes.

PS 445. CONTEMPORARY AMERICAN FOREIGN POLICY (3)
The structure and processes involved in making American foreign policy. The constitutional framework of decision-making, the role of specialized executive agencies, and an analysis of selected contemporary problems in foreign policy.

PS 453. URBAN GOVERNMENT (3)
An introduction to the theory of urbanism, formal and informal structure that govern urban areas, new patterns and policy emphases of urban government.

PS 455. THE AMERICAN LEGISLATIVE PROCESS (3)
Intensive analysis of the nature of the legislative process in the United States; organization, procedure, leadership, relation with other governmental agencies, group tactics, decision-making process in the formation of policy.

PS 463. AMERICAN POLITICAL THOUGHT (3)
American political thought from the Colonial period to the present with emphasis on recent contributions.

PS 481. INDIVIDUAL RESEARCH (1-3)
PR: Senior standing and CI. Investigation of some aspect of political science culminating in the preparation of an original research paper.

PS 491. SENIOR SEMINAR (3)
Required of all political science majors. An examination of the content and methods of political science as a social science discipline.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

PS 561. POLITICS OF THE DEVELOPING AREAS (3)
An analysis of the ideologies, governmental structures, and political processes of selected nations of the non-Western world.

PS 571. FIELD WORK (3)
Designed for political science majors. Practical participation in a political organization or governmental bureau observing its operation and making a critical analysis in light of political science principles.
Faculty: Givens, chairman; Bliss, Clement, Edwards, Girden, Hartnett, Hardy, Huff, McKittrick, Pinkard, Saxon, Sistrunk.

PC 201. INTRODUCTION TO PSYCHOLOGY (3)
A survey of major topics in psychology (learning, perception, thinking, intelligence, etc.), and an introduction to methods used in psychological investigation.

PC 213. APPLIED PSYCHOLOGY (3)
PR: CB 103 or PC 201. The application of psychological principles and the functions of psychologists in education, government, industry, and clinical practice.

PC 311-312. EXPERIMENTAL DESIGN AND METHODOLOGY (4,4)
PR: PC 201 and SS 201. Major scientific research methods and strategies and their application to psychology. Psychophysical methods, including detection theory. Topics from analysis of variance, correlation analysis, and factor analysis. Experiments in various areas of psychology. lec-lab.

PC 323. SENSATION AND PERCEPTION (3)
PR: PC 201. How man perceives his environment. Topics include sensory bases of perception, physical correlates of perceptual phenomena, and the effects of individual and social factors on perception. Primary emphasis on vision and audition.

PC 331. SOCIAL PSYCHOLOGY (3)
PR: PC 201 or SO 201. (Also see SO 331. Credit may not be earned for both.) Behavior of the individual human being as affected by the social and cultural influences of society.

PC 335. PSYCHOLOGY OF ADJUSTMENT (3)
PR: PC 201. Genetic, organic and learned factors involved in the processes of personal adjustment; applications of mental health principles to everyday living.

PC 341. CHILD PSYCHOLOGY (3)
PR: PC 201 or ED 205. Developmental and psychosocial aspects of childhood, including hereditary, maturational, psychological, and social determinants of child behavior.

PC 343. PSYCHOLOGY OF ADOLESCENCE AND ADULTHOOD (3)
PR: PC 201 or ED 206. Development through the adolescent and adult years, with emphasis on psychosocial problems of those age groups.

PC 411. ADVANCED EXPERIMENTAL PSYCHOLOGY (3)
PR: PC 311-312 and CI. A course wherein students will design, conduct, and report experiments in psychology. The topics of experimentation will vary.

PC 413. MEASUREMENT IN PSYCHOLOGY (3)
PR: SS 201. A consideration of measurement theory and study of tests and other tools of measurement. lec-lab.

PC 431. ABNORMAL PSYCHOLOGY (3)
PR: PC 433 or 335. A study of the classifications of variant behavior and some of the hypotheses used to explain such behavior.

PC 433. PERSONALITY (3)
PR: 6 hours in PC courses. Methods and findings of personality theories and an evaluation of constitutional, biosocial, and psychological determinants of personality.
PC 481. INDIVIDUAL RESEARCH (1-3)
PR: Upper division standing and CI. The student plans and conducts an individual research project under the supervision of a staff member. May be repeated with a maximum of six hours credit.

PC 485. DIRECTED READING (1-3)
PR: Upper division standing and CI. A reading program of topics in psychology is conducted with the supervision of a psychology staff member. May be repeated with a maximum of six hours credit.

PC 491. SENIOR SEMINAR IN PSYCHOLOGY (3)
PR: Senior standing and completion of the core program in psychology. Designed to give the advanced undergraduate student an opportunity to integrate concepts within the field of psychology and relate these to other areas of study.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

PC 501. PHYSIOLOGICAL PSYCHOLOGY (3)
PR: PC 312 or CI. Gross neural and physiological components of behavior. Structure and function of the central and peripheral nervous systems as related to emotion, motivation, learning, and theory of brain functions.

PC 503. HISTORY AND SYSTEMS OF PSYCHOLOGY (3)
PR: PC 311 or CI. The historical roots of modern psychological theories, investigation of the various schools of psychology such as behaviorism, Gestalt psychology, psychoanalysis, and phenomenological psychology.

PC 505. LEARNING (3)
PR: PC 201 and 311. The influence of learning on behavior, using principles derived from learning theories. lec-lab.

ROMANCE LANGUAGES

Faculty: Milani, Neugaard.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

RL 517. HISTORY OF ROMANCE LANGUAGES (3)
A historical treatment of French, Italian and Spanish beginning with an examination of the Latin base; non-Latin influences; vulgar Latin and its influence; change of forms to the present. This course may be counted towards a major in French, Italian or Spanish.

RUSSIAN

Faculty: Artzybushev, Karklins, Sokolsky.

Basic courses listed under Basic Studies.

RN 221. SCIENTIFIC RUSSIAN (3)
Primarily for students majoring in science or those desiring help in learning to read texts and research material in a specialized field.

RN 301. ADVANCED COMPOSITION (3)
To improve the student’s ability in reading and writing Russian; practice in free and fixed composition.
RN 303. ADVANCED CONVERSATION AND PRONUNCIATION (3)
To develop fluency and correctness in spoken Russian.

RN 305. SURVEY OF RUSSIAN LITERATURE (3)
Main currents of Russian literature from the 11th century through the 18th century.

RN 306. SURVEY OF RUSSIAN LITERATURE (3)
Main currents of Russian literature of the 19th and 20th centuries.

RN 491. SENIOR SEMINAR: RUSSIAN LITERATURE (3)
Study in depth of a specific writer or literary movement as chosen by the instructor. Individual research required of students.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

RN 515. HISTORY OF THE RUSSIAN LANGUAGE (3)
Development of Russian literary language; changes within Russian morphology, syntax and phonetics from the time of the earliest writings to the present. Studies from excerpts of various periods.

RN 531. EIGHTEENTH CENTURY RUSSIAN LITERATURE (3)
Study of outstanding authors of the 18th century.

RN 541. RUSSIAN DRAMA AND POETRY OF THE NINETEENTH CENTURY (3)
Study of Russian drama and poetry of the 19th century.

RN 551-552. NINETEENTH CENTURY RUSSIAN LITERATURE (3,3)
Emphasis on the novel and short story. The major writers from Pushkin to Dostoevsky. Lectures, reading and analysis of important works.

RN 561. RUSSIAN LITERATURE 1880-1917 (3)
The major authors of the period from Chekhov to Andreiyev.

RN 563. RUSSIAN SOVIET LITERATURE (3)
Revolutionary and post-revolutionary Soviet literature including Mayakovsky, Tolstoi, Sholokhov, Fadeev, Simonov and others.

RN 581. DIRECTED STUDY (3)
Specialized individual work in an area not covered by a regular course.

INTERDISCIPLINARY SOCIAL SCIENCES


SS 301. SOCIAL SCIENCE STATISTICS (3)
Topics selected from the following: measures of central tendency and variability, probability and the normal curve, correlations, curve fitting, scale and index number theory, polling, interview and survey techniques, content analysis.

SS 311. COMMUNICATION (3)
The theories, modes and processes of communication, its history as an instrument of social change and its role in human behavior.

SS 315. PUBLIC OPINION AND PRESSURE MECHANISM (3)
The content and formation of public opinion, properties of opinions and attitudes, and the principles and mechanisms of their formation and change.
SS 321. HUMAN RELATIONS AND PRODUCTIVITY (3)
Topics to be selected from the following: the relations of science, technology, resources, energy and population change to social, economic, cultural and political affairs, the social and industrial problems of mass leisure and changing consumer habits, the social significance of research in the management, behavioral and social sciences.

SS 325. PSYCHOLOGY AND THE SOCIAL ORDER (3)
Topics to be selected from the following: the quest for personal identity in modern mass society, the problems of mass culture and mass education, the problems of alienation and anomie in the 20th century, psychological factors in political and industrial conflict, man versus the machine in modern life.

AREA STUDIES
The following four courses (SS 341, 343, 345 and 347), dealing with one or more countries of a given region, will select and emphasize subject matter from the following topics: its history, its people and their cultures, its social psychology and national characteristics, its resources, its economic and industrial characteristics, its literature, religion and dominant values, its political framework and outlook, its social structure, and its current problems.

SS 341. LATIN AMERICA (3)
SS 343. ASIA (3)
SS 345. AFRICA (3)
SS 347. THE MIDDLE EAST (3)

SS 361. COMMUNISM IN THE MODERN WORLD (3)
An interdisciplinary approach to the nature of Communism, its philosophic bases, its anti-religious bias, its economic, social and political theories and practices, the arts and sciences under Communist ideology, its conduct of foreign affairs and associated programs and techniques. Emphasis will be on Soviet and Chinese Communism.

SS 411. SOCIAL ISSUES OF OUR TIME (3)
Topics to be selected from the following: freedom versus authority in the modern world, automation and cybernation and the problems they generate, the role and social consequences of modern planning, changing human ecology and the crisis in our cities, the implications of changing social patterns of Western culture and opportunities for social reconstruction.

SS 415. COMMUNITY PLANNING (3)
Theory and practice of planning for the orderly development and growth of communities to achieve optimal utilization of natural and human resources, sociological, geographic, political, psychological, economic, financial, and legal aspects of planning.

SS 449. THE EMERGING NATIONS (3)
This course examines the processes and problems involved when an underdeveloped country seeks to develop a modern industrial civilization.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

SS 503. CONTEMPORARY AMERICAN CULTURE (3)
A social analysis of the leading characteristics, ideals, and values of American life. An effort will be made to deal with a variety of contexts in which American cultural themes, standards and practices receive expression.
SS 505. SOCIAL VALUES AND SOCIAL ORDER (3)
Current and anticipated factors and problems which will govern the seven fundamental relationships with which the individual and the community are concerned. These are: man’s relationship to himself, to his fellow man, to the opposite sex, to his society and culture, to work, to Nature, and to God.

FOR GRADUATE STUDENTS ONLY

SS 601. SOCIAL PATHOLOGY (3)
An examination of the variety of social criticism which has been leveled at Western society and of some of the defenses which have been made in its behalf. Materials will be chosen from several of the social sciences.

SOCIOMETRY


SO 201. INTRODUCTION TO SOCIOLOGY (3)
Nature and application of sociological concepts, theories and methods; analysis of societies, associations and groups; social processes and social change.

SO 251. MARRIAGE (3)
Study of pre-marital and marital relations. Social, cultural and personal factors related to success and failure in mate selection and marriage.

SO 261. SOCIAL PROBLEMS (3)
Descriptive and analytical consideration of major social problems affecting individuals and groups in modern industrial societies, with emphasis on American society.

SO 301. INTRODUCTION TO SOCIAL WELFARE (3)
PR: 6 credits in sociology. The historical and contemporary development of organized social services and institutions to meet human needs.

SO 321. SOCIAL INVESTIGATION (3)
PR: 9 credits in sociology or other social science. Recommended: SS 301. Methods and techniques of social research. Design of sociological studies, collection of data, and interpretation of results.

SO 331. SOCIAL PSYCHOLOGY (3)
PR: PC 101 or SO 201. (Also see PC 331. Credit may not be earned for both.) Behavior of the individual human being as affected by social and cultural influences of modern society.

SO 341. SOCIAL ORGANIZATION (3)
PR: SO 201 or CI. Social organization in the broadest sense, including institutions and associations, as well as variations in role and status—emphasizes present American society.

SO 345. SOCIAL STRATIFICATION (3)
PR: SO 201 or CI. Social status and social stratification in the United States and Western European societies. Social class as a factor in behavior, social mobility.

SO 351. THE FAMILY (3)
PR: SO 201 or CI. Principles of family organization, social adjustment and control, the family as a social and cultural agency. Maturation and stability of the family.

SO 371. RACIAL AND ETHNIC RELATIONS (3)
PR: SO 201 or CI. Comparative study of interracial relations, social tensions, attitudes, and modes of adjustment in various areas of the world.
SO 373. SOCIOLOGY OF RELIGION (3)
PR: Upper division standing. Types, sources, and functions of religious behavior. Religious behavior of individuals and groups in relation to other aspects of personality and culture.

SO 481. INDIVIDUAL RESEARCH (1-3)
PR: 12 credits in sociology, including SO 321, upper division standing or CI. Content and method dependent upon interests and competence of the student.

SO 491. SENIOR SEMINAR (3)
For seniors majoring in sociology or other social sciences. Major issues in sociology, stressing theory and research.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

SO 501. GOVERNMENTAL WELFARE PROGRAMS (3)
PR: SO 301, upper division standing. Responsibilities and programs of the federal, state and local governments for health and welfare programs.

SO 505. COMMUNITY WELFARE RESOURCES (3)
PR: SO 301, upper division standing. Emphasis upon voluntary programs and their orderly development, planning and coordination of health and welfare services.

SO 507. AGENCY PLACEMENT AND SEMINAR (3)
PR: SO 301, 501, 505, upper division standing. Supervised observation and experience in selected social welfare agencies and institutions.

SO 515. FOUNDATIONS OF THEORY (3)
PR: SO 201 or CI, upper division standing. Historical development of significant social thought. Consideration of selected systematic theories of sociology.

SO 533. COLLECTIVE BEHAVIOR (3)
PR: SO 201 or CI, upper division standing. A study of the spontaneous development of new forms of group and mass behavior—crowds, social movements and diffuse mass behavior.

SO 535. SOCIOLOGY OF SMALL GROUPS (3)
PR: SO 201 or CI, upper division standing. Theory of small group structure, mechanics of interaction, observation of small groups under controlled conditions. Leadership, organization and task performance in small groups.

SO 541. SOCIAL CHANGE (3)
PR: SO 201, upper division standing, or CI. Major theories of social and cultural change, and mechanisms of change in preliterate, modern underdeveloped and advanced industrial societies.

SO 543. URBAN SOCIOLOGY (3)
PR: SO 201, upper division standing, or CI. The social structure of the community in modern industrial societies. Analysis of selected aspects of community change.

SO 561. CRIMINOLOGY (3)
PR: SO 201, upper division standing, or CI. Etiology of criminal behavior, law and law enforcement, crime in the United States; penology, and crime prevention.

SO 563. JUVENILE DELINQUENCY (3)
PR: SO 201, upper division standing, or CI. Incidence of the problem, theories of delinquency as a social product, individual factors, family and school influences, patterns of delinquent behavior, methods of legal and para-legal control and treatment.
SO 571. POPULATION (3)
PR: SO 201, upper division standing, or CI. Sociological determinants of fertility, mortality, and migration; theories of population change; population and its relationship to social structure.

SO 575. INDUSTRIAL SOCIOLOGY (3)
PR: SO 201, upper division standing, or CI. Industrialism in Western and non-Western society; interaction, communication and authority in economic organizations; the factory as a social system; comparisons of industrial organizations with other major organizational types.

FOR GRADUATE STUDENTS ONLY

SO 631. SOCIAL PSYCHOLOGY SEMINAR (3)
PR: 12 credits in social sciences with 6 in sociology, or CI. Analysis of role theory, self theory, relation of personality to social structure, socialization, and sociometry.

SO 641. COMMUNITY ANALYSIS (3)
PR: 12 credits in social sciences with 6 in sociology, or CI. Theories of community and community organization. Methods of community study; problems of urban areas. Applications to Tampa Bay metropolitan area.

SO 651. FAMILY ANALYSIS (3)
PR: 12 credits in social sciences with 6 in sociology, or CI. Theory of interpersonal relations and interaction in the modern family. Analysis of functions and roles. The family in the social structure.

SPANISH

Faculty: Cervone, Gleaves, McLean, Micarelli, Milani, Neugaard, Porter, Tatum.

Basic courses listed under Basic Studies.
History of Romance Languages listed under Romance Languages.

SP 301. ADVANCED SPANISH COMPOSITION AND GRAMMAR (3)
To improve student’s ability in writing Spanish, to increase his accuracy in comprehension and use of the grammatical elements; practice in both free and fixed composition.

SP 303. ADVANCED SPANISH CONVERSATION AND PRONUNCIATION (3)
To develop fluency and correctness in spoken Spanish for non-native speakers.

SP 305. SURVEY OF SPANISH LITERATURE (3)
Main currents of Spanish literature from the 12th century through the 18th century.

SP 306. SURVEY OF SPANISH LITERATURE (3)
Main currents of Spanish literature of the 19th and 20th centuries.

SP 309. COMMERCIAL CORRESPONDENCE (2)
Forms and techniques of business letter writing in Spanish, with practical studies of commerce between the United States and Latin America.

SP 311. LATIN-AMERICAN PERIODICALS (3)
Politics, economics and literature from readings in current Latin-American periodicals.

SP 313-314. SURVEY OF LATIN-AMERICAN LITERATURE (3,3)
Literary study with historical, political and cultural background of Latin-America from the 15th century to the present day.
SP 403. SPANISH PHONETICS AND DICTION (1)
Spanish phonology with emphasis on phonic groupings; correction of the individual student's errors in diction.

SP 491. SENIOR SEMINAR (3)
Study in depth of a specific writer or literary movement as chosen by the instructor. Individual research required of students.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

SP 501. MIDDLE AGES AND RENAISSANCE (3)
Spanish literature from its beginnings through the immediate predecessors of Lope de Vega.

SP 523-524. GOLDEN AGE LITERATURE (3,3)
Development of major genres of 16th and 17th centuries with emphasis on drama, poetry, and picaresque novel.

SP 541-542. NINETEENTH CENTURY SPANISH LITERATURE (3,3)
The Romantic movement, the Costumbrista, Realistic and Naturalistic movements.

SP 545. GENERATION OF 1898 (3)
Historical background of the period; development of literary genres and analyses of themes treated; specific study of the more important writers.

SP 547. MODERNISMO (3)
A study of Modernismo in Spanish and Latin American literature.

SP 551. TWENTIETH CENTURY SPANISH LITERATURE (3)
Drama, poetry and prose since the generation of 1898.

SP 581. DIRECTED STUDY (Credits vary)
Specialized individual work in an area not covered by a regular course.

FOR GRADUATE STUDENTS ONLY

SP 625. CERVANTES (3)
A study of the life and works of Cervantes with emphasis on the Don Quijote, the Entremeses and the Novelas Ejemplares. This course also emphasizes literary criticisms of Cervantes' work.

SP 691. GRADUATE SEMINAR (3)
Study of a specific literary movement. Students do research in depth on aspects of the movement being studied. Class discussion and papers required. Movement chosen to be announced one trimester in advance.

SP 692. GRADUATE SEMINAR (3)
Study in depth of one or more major literary figures. Class discussion and papers based on research. Author or authors to be studied will be announced one trimester in advance.

SPEECH

Faculty: Popovich, chairman; Brady, Huey, Kearney, Lucoff, O'Hara, Sarett, Scheib, Steck, Webb, Zaitz.

SH 103. SPEECH FOR FOREIGN STUDENTS (0)
A special course for students learning English as a second language. Intensive study and drill in American English pronunciation and listening comprehension. Must be taken in conjunction with CB 100—English for Foreign Students.
SH 201. FUNDAMENTALS OF SPEECH (3)
The nature and basic principles of speech; emphasis on improving speaking and listening skills common to all forms of oral communication through a variety of experiences in public discourse.

SH 203. SPEECH IMPROVEMENT AND PHONETICS (3)
Designed to improve vocal quality and expressiveness, articulation, and pronunciation, and to give instruction and practice in using the International Phonetic Alphabet for speech improvement.

SH 241. INTRODUCTION TO BROADCASTING (3)
PR: SH 201 or 203. Introduction to the principles, tools and skills involved in radio and television broadcasting.

SH 321. FUNDAMENTALS OF ORAL READING (3)
PR: SH 201 or 203. Designed to develop proficiency in the understanding and oral communication of literary and other written materials.

SH 343. BROADCAST SPEECH (3)
PR: SH 203. The development of skills required for effective announcing, acting, newscasting and other speaking before microphone and camera.

SH 345. THE MASS MEDIA AND SOCIETY (3)
The mass communication process and influence of the mass media upon society.

SH 347. RADIO PRODUCTION AND DIRECTION (3)

SH 351. INTRODUCTION TO AUDIOLOGY AND SPEECH PATHOLOGY (3)
PR: SH 203. The nature, causes and principles of treatment of speech and hearing disorders.

SH 361. GROUP DISCUSSION AND CONFERENCE METHODS (3)
PR: SH 201 or CI. Principles and methods of leading and participating in various types of group discussion and conference. Emphasis on reflective thinking and group dynamics.

SH 363. PUBLIC SPEAKING (3)
PR: SH 201 or CI. Study of selected public addresses as aids in speaking extemporaneously and from manuscript. The relationship between public speaking and public policy formulation.

SH 365. PUBLIC DISCUSSION: ARGUMENTATION AND PERSUASION (3)
PR: SH 201. Advanced study of factors involved in changing beliefs and behavior of audiences. Rhetorical analysis of public addresses; the study of effective organization and presentation of public questions through panel discussions, symposia, forums and debate.

SH 367. FORMS OF PUBLIC ADDRESS (3)
PR: SH 363 or 365. An advanced course emphasizing arrangement and style in informative, persuasive and ceremonial public address.

SH 369. PARLIAMENTARY SPEAKING (1)
Principles of parliamentary procedure and practice in conducting and participating in meetings governed by parliamentary rules.
SH 411. SPEECH BEHAVIOR AND PROCESSES (3)
PR: SH 203 or CI. Study of the theories of the simple and complex acoustical phenomenon of speech; intensive analysis of the stimulus-feedback variables of speech.

SH 441. TELEVISION PRODUCTION AND DIRECTION (3)
PR: SH 241. An introductory course in the techniques of producing and directing television programs.

SH 442. ADVANCED TELEVISION PRODUCTION AND DIRECTION (3)
PR: SH 441. Intensive study and practice of the techniques of television production and direction with emphasis on both creative and administrative aspects.

SH 481. DIRECTED STUDIES (Credits vary)
PR: At least junior standing. Directed study in the theory and practice of oral discourse, with attention to the individual student’s needs and interests.

SH 491. SENIOR SEMINAR: PROBLEMS IN ORAL COMMUNICATION (3)
PR: Senior standing. Exploration of problems in all aspects of speaking and listening. Open to non-majors by consent of the speech faculty. May be repeated once for credit.

FOR UPPER LEVEL AND GRADUATE STUDENTS

SH 503. APPLIED PHONETIC TRANSCRIPTION (3)

SH 511. EXPERIMENTAL PHONETICS (3)
PR: SH 203. Understanding and application of experimental methods in analyzing speech sounds. Emphasis upon important research findings, instruments and methodologies in the laboratory study of normal speech. Development of phonetic skills of discrimination and reproduction of speech sounds.

SH 521. ORAL INTERPRETATION OF POETRY AND DRAMA (3)
PR: SH 321 or CI. Critical appreciation of poetic and dramatic literature and communication of that appreciation to an audience. The presentation of public programs.

SH 523. LITERARY ADAPTATION AND ORAL INTERPRETATION (3)
PR: SH 521. Practice in composition and adaptation of literary materials for oral presentation; an investigation of the more advanced problems in oral interpretation as in Choral Speaking and Chamber Theatre.

SH 565. HISTORY AND CRITICISM OF PUBLIC ADDRESS (3)
PR: SH 363 or CI. The principles of rhetorical criticism applied to selected great speeches of Western civilization.

SH 593. LANGUAGE AND SPEECH FOR CHILDREN (3)
PR: SH 203 or CI. A diagnostic study of language development; the analysis of speech behavior and oral language needs of children; techniques of speech improvement for children.
THEATRE ARTS

Faculty: Whaley, chairman; Clay, Moise, O'Sullivan.

TA 111. PANTOMIME AND IMPROVISATION (3)
A performance course investigating the nature of stage action; the actor's inner creative state and the physical means by which he expresses himself.

TA 211. STAGE MOVEMENT AND SPEECH (3)
PR: TA 111 or CI. An exercise investigation of the nature and possibilities of human movement and sound in the theatre.

TA 221. STAGECRAFT (3)
Basic design practice, color and drafting as applied to stage and television settings. Practical exercises in construction, painting, and mounting of scenery, with participation in performance productions.

TA 301. PERFORMANCE (1)
The study, rehearsal, and performance of major theatrical works. Open to all University students by audition on a credit or non-credit basis. Credit members subject to critical examination. May be repeated.

TA 303. MODERN THEATRE PRACTICE (3)
Initial readings and exercises in theatre; play analysis, performance, and technical theatre. For non-theatre majors.

TA 325. TECHNICAL DIRECTING (3)
PR: TA 221. Mounting the physical production. Lecture-lab using selected readings and practical problems in planning and producing the technical aspects of production.

TA 339. HISTORY OF THE THEATRE (3)
A survey of the chronological development of world theatre.

TA 403. PLAYWRIGHTING (3)
PR: TA 303 or equivalent, 3 hours of creative writing, and CI. Basic dramatic writing practices and conventions. Evaluation of student work in conferences. Study of selected readings.

TA 411. ACTING (3)
PR: TA 111 or 211, or CI. Exercises in external techniques of line reading, timing of speech and movement, song selling and comedy. Analysis and building of stage characters in plays of a selected dramatist.

TA 412. DIRECTING (3)
PR: TA 411. Staging the play, including script analysis and breakdown, business, composition, movement, rhythm, rehearsal procedures and general organization. Lecture-lab using illustrative exercises and scene work.

TA 413. PERFORMANCE PRODUCTION (3)
PR: TA 412, majors only, CI. Actual production work in which members of the class assist the director of a play for public performance, teamed with designers from TA 429.
172 THEATRE ARTS

TA 421. SCENERY AND PROPERTIES (3)
PR: TA 325 or CI. Aesthetics and theories of stage design with a historical study of the development of the physical theatre and scenery, interior decor and furnishings. Practical design problems.

TA 422. COSTUME (3)
Aesthetics, design, and techniques of stage costuming. A survey of fashion of the Western World and its interpretation as costume for the stage.

TA 423. STAGE LIGHTING (3)
PR: TA 325. Aesthetics, design, and techniques of lighting as they relate to play production and theatre architecture.

TA 429. TECHNICAL PRODUCTION (3)
PR: Any two of TA 421, 422, 423, and CI. Actual production work in which students assist in design and execution of scenery, costumes, properties, and lighting for public performance, teamed with directors from TA 413.

TA 431. THEATRE LITERATURE OF MYTH AND RITUAL (3)
Development of dramatic form as it emerged from Greek and Medieval religious rites; concentration on plays of Aeschylus, Sophocles, Euripides, Aristophanes, Menander and the English miracle, mystery, and morality plays.

TA 433. LITERATURE OF THE RENAISSANCE THEATRE (3)
Historical study of Renaissance drama; readings from the plays of Machiavelli, Goldoni, Lope de Vega, Calderon, Marlowe, Jonson, Corneille, Moliere, and Racine.

TA 435. LITERATURE OF THE EIGHTEENTH & NINETEENTH CENTURIES (3)
Selected plays from the 18th and 19th centuries including works of Dryden, Etherege, Wycherley, Congreve, Gay, Goldsmith, Sheridan, Goethe, Schiller, Hugo, Scribe, Tyler, and Dunlap.

TA 437. LITERATURE OF THE MODERN AND CONTEMPORARY THEATRE (3)
Readings of contemporary American, British, and Continental drama from Ibsen to Ionesco.

TA 451. THEATRE MANAGEMENT (3)
A study of commercial, community, and educational theatre operation with special emphasis on box office management, production costs, contracts, publicity, and public relations.

TA 481. DIRECTED STUDIES (1-6)
PR: CC. Independent studies in the various areas of Theatre Arts. Course of study and credits must be assigned prior to registration.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

TA 501. DRAMATIC CRITICISM (3)
A study of the aesthetics of drama in performance, including basic critical writings from Aristotle to the present.

TA 511. STYLES OF ACTING (3)
PR: TA 411 or CI. Exercises in the performance problems of the actor in pre-modern plays.
ZOOLOGY

Faculty: Briggs, chairman; Friedl, Gratzner, Krivanek, Lawrence, Linton, Meyerriecks, Woolfenden.

Interdisciplinary courses listed under Botany-Zoology, and Oceanography.

ZO 202. ANIMAL KINGDOM† (4)
PR: BZ 201. A phylogenetic survey of the major animal groups and organ systems, accompanied by dissection of selected types. lec-lab.

ZO 271. HUMAN ANATOMY AND PHYSIOLOGY (4)
PR: CB 106 or BZ 201. The structure and function of the human body. lec-lab.

ZO 311. COMPARATIVE VERTEBRATE ANATOMY (4)

ZO 312. COMPARATIVE EMBRYOLOGY (4)
PR: ZO 202; ZO 311 strongly recommended. A comparative study of developmental processes among selected invertebrates and vertebrates with emphasis on experimental approaches. lec-lab.

ZO 313. INVERTEBRATE ZOOLOGY (4)
PR: CI. An introduction to the major invertebrate groups, with emphasis on local marine forms. Field work will be required. lec-lab.

ZO 415. INTRODUCTION TO ENTOMOLOGY (3)
PR: BZ 201 or CB 105 or CI. An introduction to general aspects of insect morphology, development and classification. The identification of local forms will be emphasized. lec-lab.

ZO 417. ORNITHOLOGY (4)
PR: BZ 201 or CB 105 or CI. An introduction to bird biology with emphasis on how birds can be used to solve biological problems. lec-lab.

ZO 421. CELLULAR PHYSIOLOGY† (4)
PR: ZO 202, CH 331 or 303. Introduction to animal physiology at the cellular level. lec-lab.

ZO 481. UNDERGRADUATE RESEARCH (1-3)
PR: Senior standing or junior standing with CI. Individual investigation with faculty supervision.

ZO 483. SELECTED TOPICS IN ZOOLOGY (4)
PR: CI. Each topic is a program in directed study under supervision of a faculty member.

ZO 491. SEMINAR IN ZOOLOGY (1)
PR: Senior or advanced junior standing or CI. May be repeated once.

FOR SENIOR LEVEL AND GRADUATE STUDENTS

ZO 513. PARASITOLOGY† (4)
PR: ZO 202. Fundamentals of animal parasitology and parasitism; the biology of selected animal parasites, including those of major importance to man. lec-lab.

† The purchase of a coupon book to cover breakage is required for courses marked with the † symbol.
ZO 516. VERTEBRATE ZOOLOGY (4)
PR: CI. Natural history of the vertebrates. lec-lab.

ZO 519. Ichthyology (4)
PR: ZO 311. Systematics of fishes, including major classification, comparative anatomy, embryology, and general distribution. lec-lab.

ZO 521. COMPARATIVE PHYSIOLOGY (4)
PR: ZO 421 or CI. The evolution of physiological mechanisms. lec-lab.

ZO 523. PHYSIOLOGY OF MARINE ANIMALS (4)

ZO 545. ZOO GEOGRAPHY (3)

ZO 561. ANIMAL BEHAVIOR (4)
PR: CI. Introduction to principles and practices of comparative animal behavior (ethology). Examples for lectures and laboratories drawn from selected local invertebrate and vertebrate groups. lec-lab.

FOR GRADUATE STUDENTS ONLY

ZO 611. EXPERIMENTAL EMBRYOLOGY (4)
PR: ZO 312 and 421. Lectures, laboratories, readings and discussions relating to contemporary advances in the area of biochemistry or development. Experimental techniques will be studied. lec-lab.

ZO 613. ADVANCED INVERTEBRATE ZOOLOGY (4)
PR: CI. The phylogeny, systematics, functional morphology, development and ecology of major invertebrate groups, with emphasis on local forms. Individual laboratory and field work will be required. lec-lab.

ZO 617. ADVANCED ORNITHOLOGY (4)
PR: ZO 417. Classification and distribution of the birds of the world and a survey of ornithological literature. lec-lab.

ZO 619. ADVANCED ICHTHYOLOGY
PR: CI. Systematic ichthyology with particular reference to the important literature together with a historical introduction. Laboratory devoted to completion of a systematic problem by each student. lec-lab.

ZO 621. PHYSIOLOGICAL ECOLOGY (4)
PR: CI. Effect of environmental factors on animal function at the cellular and organ system level with emphasis on control mechanisms. lec-lab.

ZO 622. INVERTEBRATE PHYSIOLOGY (4)
PR: CI. A study of the physiological and metabolic bases of alimentation, transport, excretion, and coordination in selected invertebrate types emphasizing local forms. Student project and field collections required. lec-lab.

ZO 631. ADVANCED GENETICS (4)
PR: CI. A course in contemporary genetics, with special reference to molecular genetics, genetic fine structure analysis, and control of protein synthesis. lec-lab.
ZO 661. ADVANCED ANIMAL BEHAVIOR (4)
PR: ZO 561 or CI. Recent advances in comparative animal behavior (ethology). lec-lab.

ZO 681. GRADUATE RESEARCH (1-6)
PR: CI. Directed research on non-thesis topics. May be repeated.

ZO 683. SELECTED TOPICS IN ZOOLOGY (1-3)
PR: CI.

ZO 691. GRADUATE SEMINAR IN ZOOLOGY (1)
PR: Graduate standing. May be repeated.

ZO 699. M.A. THESIS (1-6)
PR: CI. May be repeated to a maximum of six credits.
GLOSSARY

An explanation of terms with which the reader may not be familiar.

Academic Year: Beginning of Trimester I to end of Trimester III-B; usually considered as September 1 to August 31.

Admission: Acceptance of a student for enrollment.

Audit: To enroll in a course for instruction only. Although regular attendance is customary, no homework or examinations are required, and no grade or credit is recorded. Regular fees apply to audited courses.

College: A unit within the University responsible for providing instruction in a given area of knowledge.

Course: A unit of instruction in a particular subject, usually one trimester in length.

Credit Hour: A unit of academic work. The number of credit hours specified for a course is usually equal to the number of times the class meets each week. Often abbreviated as “Credit” or “Hour.”

Curriculum: A group of courses, forming a major field of study, required for a degree or certificate.

Elective: Any of a number of courses from which a student is allowed to select. A “free elective” is one not required in the student’s curriculum.

Faculty: Persons in teaching and research; the instructional staff of the University.

Grade Point Ratio (GPR): Ratio of grade points to credit hours attempted; similar to “grade average.”

Major: Student’s academic area of concentration or field of specialization.

Matriculation: The first registration following admission as a classified student.

Prerequisite: Prior study or authorization required to qualify for enrollment in a course.

Registration: Process of enrolling for classes.

Upper Level: A general term applying to courses and programs offered at the junior and senior levels.

Trimester: Period of instruction into which the academic year is divided (15 weeks).
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† Leave of absence 1965-66.

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